

change from oxidized (non-fluorescent blue) form to reduced (fluorescent red) form (i.e., stimulated proliferation will produce a stronger signal and inhibited proliferation will produce a weaker signal and the total signal is proportional to the total number of cells as well as their metabolic activity). The background level of activity is observed with the starvation medium alone. This is compared to the output observed from the positive control samples (bFGF in growth medium) and protein dilutions.

***Example 42: Detection of Inhibition of a Mixed Lymphocyte Reaction***

This assay can be used to detect and evaluate inhibition of a Mixed Lymphocyte Reaction (MLR) by fusion proteins of the invention. Inhibition of a MLR may be due to a direct effect on cell proliferation and viability, modulation of costimulatory molecules on interacting cells, modulation of adhesiveness between lymphocytes and accessory cells, or modulation of cytokine production by accessory cells. Multiple cells may be targeted by the albumin fusion proteins that inhibit MLR since the peripheral blood mononuclear fraction used in this assay includes T, B and natural killer lymphocytes, as well as monocytes and dendritic cells.

Albumin fusion proteins of the invention found to inhibit the MLR may find application in diseases associated with lymphocyte and monocyte activation or proliferation. These include, but are not limited to, diseases such as asthma, arthritis, diabetes, inflammatory skin conditions, psoriasis, eczema, systemic lupus erythematosus, multiple sclerosis, glomerulonephritis, inflammatory bowel disease, crohn's disease, ulcerative colitis, arteriosclerosis, cirrhosis, graft vs. host disease, host vs. graft disease, hepatitis, leukemia and lymphoma.

Briefly, PBMCs from human donors are purified by density gradient centrifugation using Lymphocyte Separation Medium (LSM<sup>®</sup>, density 1.0770 g/ml, Organon Teknika Corporation, West Chester, PA). PBMCs from two donors are adjusted to  $2 \times 10^6$  cells/ml in RPMI-1640 (Life Technologies, Grand Island, NY) supplemented with 10% FCS and 2 mM glutamine. PBMCs from a third donor is adjusted to  $2 \times 10^5$  cells/ml. Fifty microliters of PBMCs from each donor is added to wells of a 96-well round bottom microtiter plate. Dilutions of the fusion protein test material (50  $\mu$ l) is added in triplicate to microtiter wells. Test samples (of the protein of interest) are added for final dilution of 1:4; rhuIL-2 (R&D Systems, Minneapolis, MN, catalog number 202-IL) is added to a final

concentration of 1  $\mu\text{g/ml}$ ; anti-CD4 mAb (R&D Systems, clone 34930.11, catalog number MAB379) is added to a final concentration of 10  $\mu\text{g/ml}$ . Cells are cultured for 7-8 days at 37°C in 5% CO<sub>2</sub>, and 1  $\mu\text{Ci}$  of [<sup>3</sup>H] thymidine is added to wells for the last 16 hrs of culture. Cells are harvested and thymidine incorporation determined using a Packard  
5 TopCount. Data is expressed as the mean and standard deviation of triplicate determinations.

Samples of the fusion protein of interest are screened in separate experiments and compared to the negative control treatment, anti-CD4 mAb, which inhibits proliferation of lymphocytes and the positive control treatment, IL-2 (either as recombinant material or  
10 supernatant), which enhances proliferation of lymphocytes.

#### *Example 43: Assays for Protease Activity*

The following assay may be used to assess protease activity of an albumin fusion protein of the invention.

15 Gelatin and casein zymography are performed essentially as described (Heusen et al., *Anal. Biochem.*, 102:196-202 (1980); Wilson et al., *Journal of Urology*, 149:653-658 (1993)). Samples are run on 10% polyacrylamide/0.1% SDS gels containing 1% gelatin or casein, soaked in 2.5% triton at room temperature for 1 hour, and in 0.1M glycine, pH 8.3 at 37°C 5 to 16 hours. After staining in amido black areas of proteolysis appear as clear  
20 areas against the blue-black background. Trypsin (Sigma T8642) is used as a positive control.

Protease activity is also determined by monitoring the cleavage of n-a-benzoyl-L-arginine ethyl ester (BAEE) (Sigma B-4500). Reactions are set up in (25mMNaPO<sub>4</sub>, 1mM EDTA, and 1mM BAEE), pH 7.5. Samples are added and the change in adsorbance at  
25 260nm is monitored on the Beckman DU-6 spectrophotometer in the time-drive mode. Trypsin is used as a positive control.

Additional assays based upon the release of acid-soluble peptides from casein or hemoglobin measured as adsorbance at 280 nm or colorimetrically using the Folin method are performed as described in Bergmeyer, et al., *Methods of Enzymatic Analysis*, 5 (1984).

30 Other assays involve the solubilization of chromogenic substrates (Ward, *Applied Science*, 251-317 (1983)).

***Example 44: Identifying Serine Protease Substrate Specificity***

Methods known in the art or described herein may be used to determine the substrate specificity of the albumin fusion proteins of the present invention having serine protease activity. A preferred method of determining substrate specificity is by the use of positional scanning synthetic combinatorial libraries as described in GB 2 324 529 (incorporated herein in its entirety).

***Example 45: Ligand Binding Assays***

The following assay may be used to assess ligand binding activity of an albumin fusion protein of the invention.

Ligand binding assays provide a direct method for ascertaining receptor pharmacology and are adaptable to a high throughput format. The purified ligand for an albumin fusion protein of the invention is radiolabeled to high specific activity (50-2000 Ci/mmol) for binding studies. A determination is then made that the process of radiolabeling does not diminish the activity of the ligand towards the fusion protein. Assay conditions for buffers, ions, pH and other modulators such as nucleotides are optimized to establish a workable signal to noise ratio for both membrane and whole cell polypeptide sources. For these assays, specific polypeptide binding is defined as total associated radioactivity minus the radioactivity measured in the presence of an excess of unlabeled competing ligand. Where possible, more than one competing ligand is used to define residual nonspecific binding.

***Example 46: Functional Assay in *Xenopus* Oocytes***

Capped RNA transcripts from linearized plasmid templates encoding an albumin fusion protein of the invention is synthesized in vitro with RNA polymerases in accordance with standard procedures. In vitro transcripts are suspended in water at a final concentration of 0.2 mg/ml. Ovarian lobes are removed from adult female toads, Stage V defolliculated oocytes are obtained, and RNA transcripts (10 ng/oocyte) are injected in a 50 nl bolus using a microinjection apparatus. Two electrode voltage clamps are used to measure the currents from individual *Xenopus oocytes* in response fusion protein and polypeptide agonist exposure. Recordings are made in Ca<sup>2+</sup> free Barth's medium at room

temperature. The *Xenopus* system can be used to screen known ligands and tissue/cell extracts for activating ligands.

***Example 47: Microphysiometric Assays***

5       Activation of a wide variety of secondary messenger systems results in extrusion of small amounts of acid from a cell. The acid formed is largely as a result of the increased metabolic activity required to fuel the intracellular signaling process. The pH changes in the media surrounding the cell are very small but are detectable by the CYTOSENSOR microphysiometer (Molecular Devices Ltd., Menlo Park, Calif.). The CYTOSENSOR is  
10       thus capable of detecting the ability of an albumin fusion protein of the invention to activate secondary messengers that are coupled to an energy utilizing intracellular signaling pathway.

***Example 48: Extract/Cell Supernatant Screening***

15       A large number of mammalian receptors exist for which there remains, as yet, no cognate activating ligand (agonist). Thus, active ligands for these receptors may not be included within the ligands banks as identified to date. Accordingly, the albumin fusion proteins of the invention can also be functionally screened (using calcium, cAMP, microphysiometer, oocyte electrophysiology, etc., functional screens) against tissue  
20       extracts to identify natural ligands for the Therapeutic protein portion and/or albumin protein portion of an albumin fusion protein of the invention. Extracts that produce positive functional responses can be sequentially subfractionated until an activating ligand is isolated and identified.

25       ***Example 49: ATP-binding assay***

      The following assay may be used to assess ATP-binding activity of fusion proteins of the invention.

      ATP-binding activity of an albumin fusion protein of the invention may be detected using the ATP-binding assay described in U.S. Patent 5,858,719, which is herein  
30       incorporated by reference in its entirety. Briefly, ATP-binding to an albumin fusion protein of the invention is measured via photoaffinity labeling with 8-azido-ATP in a competition assay. Reaction mixtures containing 1 mg/ml of ABC transport protein are incubated with



varying concentrations of ATP, or the non-hydrolyzable ATP analog adenylyl-5'-imidodiphosphate for 10 minutes at 4°C. A mixture of 8-azido-ATP (Sigma Chem. Corp., St. Louis, MO.) plus 8-azido-ATP ( $^{32}\text{P}$ -ATP) (5 mCi/ $\mu\text{mol}$ , ICN, Irvine CA.) is added to a final concentration of 100  $\mu\text{M}$  and 0.5 ml aliquots are placed in the wells of a porcelain spot plate on ice. The plate is irradiated using a short wave 254 nm UV lamp at a distance of 2.5 cm from the plate for two one-minute intervals with a one-minute cooling interval in between. The reaction is stopped by addition of dithiothreitol to a final concentration of 2mM. The incubations are subjected to SDS-PAGE electrophoresis, dried, and autoradiographed. Protein bands corresponding to the albumin fusion proteins of the invention are excised, and the radioactivity quantified. A decrease in radioactivity with increasing ATP or adenylyl-5'-imidodiphosphate provides a measure of ATP affinity to the fusion protein.

***Example 50: Phosphorylation Assay***

In order to assay for phosphorylation activity of an albumin fusion protein of the invention, a phosphorylation assay as described in U.S. Patent 5,958,405 (which is herein incorporated by reference) is utilized. Briefly, phosphorylation activity may be measured by phosphorylation of a protein substrate using gamma-labeled  $^{32}\text{P}$ -ATP and quantitation of the incorporated radioactivity using a gamma radioisotope counter. The fusion protein of the invention is incubated with the protein substrate,  $^{32}\text{P}$ -ATP, and a kinase buffer. The  $^{32}\text{P}$  incorporated into the substrate is then separated from free  $^{32}\text{P}$ -ATP by electrophoresis, and the incorporated  $^{32}\text{P}$  is counted and compared to a negative control. Radioactivity counts above the negative control are indicative of phosphorylation activity of the fusion protein.

***Example 51: Detection of Phosphorylation Activity (Activation) of an Albumin Fusion Protein of the Invention in the Presence of Polypeptide Ligands***

Methods known in the art or described herein may be used to determine the phosphorylation activity of an albumin fusion protein of the invention. A preferred method of determining phosphorylation activity is by the use of the tyrosine phosphorylation assay as described in US 5,817,471 (incorporated herein by reference).

***Example 52: Identification Of Signal Transduction Proteins That Interact With An albumin fusion protein Of The Present Invention***

Albumin fusion proteins of the invention may serve as research tools for the identification, characterization and purification of signal transduction pathway proteins or receptor proteins. Briefly, a labeled fusion protein of the invention is useful as a reagent for the purification of molecules with which it interacts. In one embodiment of affinity purification, an albumin fusion protein of the invention is covalently coupled to a chromatography column. Cell-free extract derived from putative target cells, such as carcinoma tissues, is passed over the column, and molecules with appropriate affinity bind to the albumin fusion protein. The protein complex is recovered from the column, dissociated, and the recovered molecule subjected to N-terminal protein sequencing. This amino acid sequence is then used to identify the captured molecule or to design degenerate oligonucleotide probes for cloning the relevant gene from an appropriate cDNA library.

***Example 53: IL-6 Bioassay***

A variety of assays are known in the art for testing the proliferative effects of an albumin fusion protein of the invention. For example, one such assay is the IL-6 Bioassay as described by Marz *et al.* (*Proc. Natl. Acad. Sci., U.S.A.*, 95:3251-56 (1998), which is herein incorporated by reference). After 68 hrs. at 37°C, the number of viable cells is measured by adding the tetrazolium salt thiazolyl blue (MTT) and incubating for a further 4 hrs. at 37°C. B9 cells are lysed by SDS and optical density is measured at 570 nm. Controls containing IL-6 (positive) and no cytokine (negative) are Briefly, IL-6 dependent B9 murine cells are washed three times in IL-6 free medium and plated at a concentration of 5,000 cells per well in 50 µl, and 50 µl of fusion protein of the invention is added. Enhanced proliferation in the test sample(s) (containing an albumin fusion protein of the invention) relative to the negative control is indicative of proliferative effects mediated by the fusion protein.

***Example 54: Support of Chicken Embryo Neuron Survival***

To test whether sympathetic neuronal cell viability is supported by an albumin fusion protein of the invention, the chicken embryo neuronal survival assay of Senaldi *et al* may be utilized (*Proc. Natl. Acad. Sci., U.S.A.*, 96:11458-63 (1998), which is herein

incorporated by reference). Briefly, motor and sympathetic neurons are isolated from chicken embryos, resuspended in L15 medium (with 10% FCS, glucose, sodium selenite, progesterone, conalbumin, putrescine, and insulin; Life Technologies, Rockville, MD.) and Dulbecco's modified Eagles medium [with 10% FCS, glutamine, penicillin, and 25 mM Hepes buffer (pH 7.2); Life Technologies, Rockville, MD.], respectively, and incubated at 37°C in 5% CO<sub>2</sub> in the presence of different concentrations of the purified fusion protein of the invention, as well as a negative control lacking any cytokine. After 3 days, neuron survival is determined by evaluation of cellular morphology, and through the use of the colorimetric assay of Mosmann (Mosmann, T., *J. Immunol. Methods*, 65:55-63 (1983)). Enhanced neuronal cell viability as compared to the controls lacking cytokine is indicative of the ability of the albumin fusion protein to enhance the survival of neuronal cells.

***Example 55: Assay for Phosphatase Activity***

The following assay may be used to assess serine/threonine phosphatase (PTPase) activity of an albumin fusion protein of the invention.

In order to assay for serine/threonine phosphatase (PTPase) activity, assays can be utilized which are widely known to those skilled in the art. For example, the serine/threonine phosphatase (PSPase) activity of an albumin fusion protein of the invention may be measured using a PSPase assay kit from New England Biolabs, Inc. Myelin basic protein (MyBP), a substrate for PSPase, is phosphorylated on serine and threonine residues with cAMP-dependent Protein Kinase in the presence of [<sup>32</sup>P]ATP. Protein serine/threonine phosphatase activity is then determined by measuring the release of inorganic phosphate from 32P-labeled MyBP.

***Example 56: Interaction of Serine/Threonine Phosphatases with other Proteins***

Fusion protein of the invention having serine/threonine phosphatase activity (e.g., as determined in Example 55) are useful, for example, as research tools for the identification, characterization and purification of additional interacting proteins or receptor proteins, or other signal transduction pathway proteins. Briefly, a labeled fusion protein of the invention is useful as a reagent for the purification of molecules with which it interacts. In one embodiment of affinity purification, an albumin fusion protein of the

invention is covalently coupled to a chromatography column. Cell-free extract derived from putative target cells, such as neural or liver cells, is passed over the column, and molecules with appropriate affinity bind to the fusion protein. The fusion protein-complex is recovered from the column, dissociated, and the recovered molecule subjected to N-terminal protein sequencing. This amino acid sequence is then used to identify the captured molecule or to design degenerate oligonucleotide probes for cloning the relevant gene from an appropriate cDNA library.

*Example 57: Assaying for Heparanase Activity*

There are numerous assays known in the art that may be employed to assay for heparanase activity of an albumin fusion protein of the invention. In one example, heparanase activity of an albumin fusion protein of the invention, is assayed as described by Vlodavsky et al., (Vlodavsky et al., Nat. Med., 5:793-802 (1999)). Briefly, cell lysates, conditioned media, intact cells ( $1 \times 10^6$  cells per 35-mm dish), cell culture supernatant, or purified fusion protein are incubated for 18 hrs at 37°C, pH 6.2-6.6, with  $^{35}\text{S}$ -labeled ECM or soluble ECM derived peak I proteoglycans. The incubation medium is centrifuged and the supernatant is analyzed by gel filtration on a Sepharose CL-6B column (0.9 x 30 cm). Fractions are eluted with PBS and their radioactivity is measured. Degradation fragments of heparan sulfate side chains are eluted from Sepharose 6B at  $0.5 < K_{av} < 0.8$  (peak II). Each experiment is done at least three times. Degradation fragments corresponding to "peak II," as described by Vlodavsky et al., is indicative of the activity of an albumin fusion protein of the invention in cleaving heparan sulfate.

*Example 58: Immobilization of biomolecules*

This example provides a method for the stabilization of an albumin fusion protein of the invention in non-host cell lipid bilayer constructs (see, e.g., Bieri et al., Nature Biotech 17:1105-1108 (1999), hereby incorporated by reference in its entirety herein) which can be adapted for the study of fusion proteins of the invention in the various functional assays described above. Briefly, carbohydrate-specific chemistry for biotinylation is used to confine a biotin tag to an albumin fusion protein of the invention, thus allowing uniform orientation upon immobilization. A 50uM solution of an albumin fusion protein of the invention in washed membranes is incubated with 20 mM NaIO<sub>4</sub> and

1.5 mg/ml (4mM) BACH or 2 mg/ml (7.5mM) biotin-hydrazide for 1 hr at room temperature (reaction volume, 150ul). Then the sample is dialyzed (Pierce Slidealizer Cassett, 10 kDa cutoff; Pierce Chemical Co., Rockford IL) at 4C first for 5 h, exchanging the buffer after each hour, and finally for 12 h against 500 ml buffer R (0.15 M NaCl, 1 mM MgCl<sub>2</sub>, 10 mM sodium phosphate, pH7). Just before addition into a cuvette, the sample is diluted 1:5 in buffer ROG50 (Buffer R supplemented with 50 mM octylglucoside).

*Example 59: Assays for Metalloproteinase Activity*

10 Metalloproteinases are peptide hydrolases which use metal ions, such as Zn<sup>2+</sup>, as the catalytic mechanism. Metalloproteinase activity of an albumin fusion protein of the present invention can be assayed according to methods known in the art. The following exemplary methods are provided:

*Proteolysis of alpha-2-macroglobulin*

15 To confirm protease activity, a purified fusion protein of the invention is mixed with the substrate alpha-2-macroglobulin (0.2 unit/ml; Boehringer Mannheim, Germany) in 1x assay buffer (50 mM HEPES, pH 7.5, 0.2 M NaCl, 10 mM CaCl<sub>2</sub>, 25 μM ZnCl<sub>2</sub> and 0.05% Brij-35) and incubated at 37°C for 1-5 days. Trypsin is used as positive control. Negative controls contain only alpha-2-macroglobulin in assay buffer. The samples are  
20 collected and boiled in SDS-PAGE sample buffer containing 5% 2-mercaptoethanol for 5-min, then loaded onto 8% SDS-polyacrylamide gel. After electrophoresis the proteins are visualized by silver staining. Proteolysis is evident by the appearance of lower molecular weight bands as compared to the negative control.

25 *Inhibition of alpha-2-macroglobulin proteolysis by inhibitors of metalloproteinases*

Known metalloproteinase inhibitors (metal chelators (EDTA, EGTA, AND HgCl<sub>2</sub>), peptide metalloproteinase inhibitors (TIMP-1 and TIMP-2), and commercial small molecule MMP inhibitors) may also be used to characterize the proteolytic activity  
30 of an albumin fusion protein of the invention. Three synthetic MMP inhibitors that may be used are: MMP inhibitor I, [IC<sub>50</sub> = 1.0 μM against MMP-1 and MMP-8; IC<sub>50</sub> = 30 μM against MMP-9; IC<sub>50</sub> = 150 μM against MMP-3]; MMP-3 (stromelysin-1) inhibitor I [IC<sub>50</sub>

= 5  $\mu$ M against MMP-3], and MMP-3 inhibitor II [ $K_i$  = 130 nM against MMP-3]; inhibitors available through Calbiochem, catalog # 444250, 444218, and 444225, respectively). Briefly, different concentrations of the small molecule MMP inhibitors are mixed with a purified fusion protein of the invention (50 $\mu$ g/ml) in 22.9  $\mu$ l of 1x HEPES  
5 buffer (50 mM HEPES, pH 7.5, 0.2 M NaCl, 10 mM CaCl<sub>2</sub>, 25  $\mu$ M ZnCl<sub>2</sub> and 0.05%Brij-35) and incubated at room temperature (24 °C) for 2-hr, then 7.1  $\mu$ l of substrate alpha-2-macroglobulin (0.2 unit/ml) is added and incubated at 37°C for 20-hr. The reactions are stopped by adding 4x sample buffer and boiled immediately for 5 minutes. After SDS-PAGE, the protein bands are visualized by silver stain.

10

#### *Synthetic Fluorogenic Peptide Substrates Cleavage Assay*

The substrate specificity for fusion proteins of the invention with demonstrated metalloproteinase activity may be determined using techniques known in the art, such as using synthetic fluorogenic peptide substrates (purchased from BACHEM Bioscience Inc).  
15 Test substrates include, M-1985, M-2225, M-2105, M-2110, and M-2255. The first four are MMP substrates and the last one is a substrate of tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) converting enzyme (TACE). These substrates are preferably prepared in 1:1 dimethyl sulfoxide (DMSO) and water. The stock solutions are 50-500  $\mu$ M. Fluorescent assays are performed by using a Perkin Elmer LS 50B luminescence spectrometer equipped with a  
20 constant temperature water bath. The excitation  $\lambda$  is 328 nm and the emission  $\lambda$  is 393 nm. Briefly, the assay is carried out by incubating 176  $\mu$ l 1x HEPES buffer (0.2 M NaCl, 10 mM CaCl<sub>2</sub>, 0.05% Brij-35 and 50 mM HEPES, pH 7.5) with 4  $\mu$ l of substrate solution (50  $\mu$ M) at 25 °C for 15 minutes, and then adding 20  $\mu$ l of a purified fusion protein of the invention into the assay cuvet. The final concentration of substrate is 1  $\mu$ M. Initial  
25 hydrolysis rates are monitored for 30-min.

#### *Example 60: Identification and Cloning of VH and VL domains*

One method to identify and clone VH and VL domains from cell lines expressing a particular antibody is to perform PCR with VH and VL specific primers on cDNA made  
30 from the antibody expressing cell lines. Briefly, RNA is isolated from the cell lines and used as a template for RT-PCR designed to amplify the VH and VL domains of the antibodies expressed by the EBV cell lines. Cells may be lysed in the TRIzol® reagent

(Life Technologies, Rockville, MD) and extracted with one fifth volume of chloroform. After addition of chloroform, the solution is allowed to incubate at room temperature for 10 minutes, and the centrifuged at 14,000 rpm for 15 minutes at 4°C in a tabletop centrifuge. The supernatant is collected and RNA is precipitated using an equal volume of isopropanol. Precipitated RNA is pelleted by centrifuging at 14,000 rpm for 15 minutes at 4°C in a tabletop centrifuge. Following centrifugation, the supernatant is discarded and washed with 75% ethanol. Following washing, the RNA is centrifuged again at 800 rpm for 5 minutes at 4°C. The supernatant is discarded and the pellet allowed to air dry. RNA is dissolved in DEPC water and heated to 60°C for 10 minutes. Quantities of RNA can be determined using optical density measurements.

cDNA may be synthesized, according to methods well-known in the art, from 1.5-2.5 micrograms of RNA using reverse transcriptase and random hexamer primers. cDNA is then used as a template for PCR amplification of VH and VL domains. Primers used to amplify VH and VL genes are shown in Table 3. Typically a PCR reaction makes use of a single 5' primer and a single 3' primer. Sometimes, when the amount of available RNA template is limiting, or for greater efficiency, groups of 5' and/or 3' primers may be used. For example, sometimes all five VH-5' primers and all JH3' primers are used in a single PCR reaction. The PCR reaction is carried out in a 50 microliter volume containing 1X PCR buffer, 2mM of each dNTP, 0.7 units of High Fidelity Taq polymerase, 5' primer mix, 3' primer mix and 7.5 microliters of cDNA. The 5' and 3' primer mix of both VH and VL can be made by pooling together 22 pmole and 28 pmole, respectively, of each of the individual primers. PCR conditions are: 96°C for 5 minutes; followed by 25 cycles of 94°C for 1 minute, 50°C for 1 minute, and 72°C for 1 minute; followed by an extension cycle of 72°C for 10 minutes. After the reaction is completed, sample tubes are stored at 4°C.

Table 3: Primer Sequences Used to Amplify VH and VL domains.

	Primer name	SEQ ID NO	Primer Sequence (5'-3')
	VH Primers		
5	Hu VH1-5'	36	CAGGTGCAGCTGGTGCAGTCTGG
	Hu VH2-5'	37	CAGGTCAACTTAAGGGAGTCTGG
	Hu VH3-5'	38	GAGGTGCAGCTGGTGGAGTCTGG
	Hu VH4-5'	39	CAGGTGCAGCTGCAGGA $\bar{G}$ TCGGG
	Hu VH5-5'	40	GAGGTGCAGCTGTTGCAGTCTGC
10	Hu VH6-5'	41	CAGGTACAGCTGCAGCAGTCAGG
	Hu JH1,2-5'	42	TGAGGAGACGGTGACCAGGGTGCC
	Hu JH3-5'	43	TGAAGAGACGGTGACCATTGTCCC
	Hu JH4,5-5'	44	TGAGGAGACGGTGACCAGGGTTCC
	Hu JH6-5'	45	TGAGGAGACGGTGACCGTGGTCCC
15	VL Primers		
	Hu Vkappa1-5'	46	GACATCCAGATGACCCAGTCTCC
	Hu Vkappa2a-5'	47	GATGTTGTGATGACTCAGTCTCC
	Hu Vkappa2b-5'	48	GATATTGTGATGACTCAGTCTCC
20	Hu Vkappa3-5'	49	GAAATTGTGTTGACGCAGTCTCC
	Hu Vkappa4-5'	50	GACATCGTGATGACCCAGTCTCC
	Hu Vkappa5-5'	51	GAAACGACACTCACGCAGTCTCC
	Hu Vkappa6-5'	52	GAAATTGTGCTGACTCAGTCTCC
	Hu Vlambda1-5'	53	CAGTCTGTGTTGACGCAGCCGCC
25	Hu Vlambda2-5'	54	CAGTCTGCCCTGACTCAGCCTGC
	Hu Vlambda3-5'	55	TCCTATGTGCTGACTCAGCCACC
	Hu Vlambda3b-5'	56	TCTTCTGAGCTGACTCAGGACCC
	Hu Vlambda4-5'	57	CACGTTATACTGACTCAACCGCC
	Hu Vlambda5-5'	58	CAGGCTGTGCTCACTCAGCCGTC
30	Hu Vlambda6-5'	59	AATTTTATGCTGACTCAGCCCCA
	Hu Jkappa1-3'	60	ACGTTTGATTTCCACCTTGGTCCC
	Hu Jkappa2-3'	61	ACGTTTGATCTCCAGCTTGGTCCC
	Hu Jkappa3-3'	62	ACGTTTGATATCCACTTTGGTCCC
	Hu Jkappa4-3'	63	ACGTTTGATCTCCACCTTGGTCCC
35	Hu Jkappa5-3'	64	ACGTTTAATCTCCAGTCGTGTCCC
	Hu Jlambda1-3'	65	CAGTCTGTGTTGACGCAGCCGCC
	Hu Jlambda2-3'	66	CAGTCTGCCCTGACTCAGCCTGC
	Hu Jlambda3-3'	67	TCCTATGTGCTGACTCAGCCACC
	Hu Jlambda3b-3'	68	TCTTCTGAGCTGACTCAGGACCC
40	Hu Jlambda4-3'	69	CACGTTATACTGACTCAACCGCC
	Hu Jlambda5-3'	70	CAGGCTGTGCTCACTCAGCCGTC
	Hu Jlambda6-3'	71	AATTTTATGCTGACTCAGCCCCA



PCR samples are then electrophoresed on a 1.3% agarose gel. DNA bands of the expected sizes (~506 base pairs for VH domains, and 344 base pairs for VL domains) can be cut out of the gel and purified using methods well known in the art. Purified PCR products can be ligated into a PCR cloning vector (TA vector from Invitrogen Inc.,  
5 Carlsbad, CA). Individual cloned PCR products can be isolated after transfection of E. coli and blue/white color selection. Cloned PCR products may then be sequenced using methods commonly known in the art.

The PCR bands containing the VH domain and the VL domains can also be used to create full-length Ig expression vectors. VH and VL domains can be cloned into vectors  
10 containing the nucleotide sequences of a heavy (e.g., human IgG1 or human IgG4) or light chain (human kappa or human lambda) constant regions such that a complete heavy or light chain molecule could be expressed from these vectors when transfected into an appropriate host cell. Further, when cloned heavy and light chains are both expressed in one cell line (from either one or two vectors), they can assemble into a complete functional  
15 antibody molecule that is secreted into the cell culture medium. Methods using polynucleotides encoding VH and VL antibody domain to generate expression vectors that encode complete antibody molecules are well known within the art.

20 It will be clear that the invention may be practiced otherwise than as particularly described in the foregoing description and examples. Numerous modifications and variations of the present invention are possible in light of the above teachings and, therefore, are within the scope of the appended claims.

The entire disclosure of each document cited (including patents, patent  
25 applications, patent publications, journal articles, abstracts, laboratory manuals, books, or other disclosures) as well as information available through Identifiers specific to databases such as GenBank, GeneSeq, or the CAS Registry, referred to in this application are herein incorporated by reference in their entirety. The specification and sequence listing of each of the following U.S. applications are herein incorporated by reference in their entirety:

App Number	File Date
60/047,599	23-May-1997
60/043,576	11-Apr-1997

60/043,578	11-Apr-1997
60/043,568	11-Apr-1997
60/040,162	07-Mar-1997
60/047,601	23-May-1997
60/047,632	23-May-1997
60/047,595	23-May-1997
60/056,845	22-Aug-1997
60/056,664	22-Aug-1997
60/056,892	22-Aug-1997
60/056,632	22-Aug-1997
60/043,580	11-Apr-1997
60/043,314	11-Apr-1997
60/056,631	22-Aug-1997
60/043,674	11-Apr-1997
60/043,670	11-Apr-1997
60/043,569	11-Apr-1997
60/043,671	11-Apr-1997
60/047,596	23-May-1997
60/056,876	22-Aug-1997
60/047,612	23-May-1997
60/047,588	23-May-1997
60/056,864	22-Aug-1997
60/043,311	11-Apr-1997
60/040,333	07-Mar-1997
60/043,312	11-Apr-1997
60/056,909	22-Aug-1997
60/056,910	22-Aug-1997
60/056,636	22-Aug-1997
60/047,586	23-May-1997
60/043,315	11-Apr-1997
60/043,669	11-Apr-1997
60/043,672	11-Apr-1997
60/047,585	23-May-1997
60/047,598	23-May-1997
60/056,874	22-Aug-1997
60/047,582	23-May-1997
60/056,881	22-Aug-1997
60/043,313	11-Apr-1997
60/047,613	23-May-1997
60/038,621	07-Mar-1997
60/040,161	07-Mar-1997
60/056,911	22-Aug-1997
60/047,492	23-May-1997
60/047,584	23-May-1997
60/047,500	23-May-1997

60/047,587	23-May-1997
60/056,880	22-Aug-1997
60/056,894	22-Aug-1997
60/056,879	22-Aug-1997
60/047,590	23-May-1997
60/047,581	23-May-1997
60/047,592	23-May-1997
60/056,637	22-Aug-1997
60/047,503	23-May-1997
60/056,903	22-Aug-1997
60/056,888	22-Aug-1997
60/040,626	07-Mar-1997
60/056,882	22-Aug-1997
60/056,875	22-Aug-1997
60/047,501	23-May-1997
60/056,878	22-Aug-1997
60/056,662	22-Aug-1997
60/056,872	22-Aug-1997
60/047,589	23-May-1997
60/056,884	22-Aug-1997
60/056,862	22-Aug-1997
60/040,334	07-Mar-1997
60/047,583	23-May-1997
60/047,618	23-May-1997
60/047,594	23-May-1997
60/047,617	23-May-1997
60/047,633	23-May-1997
60/047,593	23-May-1997
60/056,630	22-Aug-1997
60/047,502	23-May-1997
60/040,336	07-Mar-1997
60/056,887	22-Aug-1997
60/056,893	22-Aug-1997
60/056,889	22-Aug-1997
60/047,614	23-May-1997
60/047,615	23-May-1997
60/040,163	07-Mar-1997
60/047,597	23-May-1997
60/056,877	22-Aug-1997
60/047,600	23-May-1997
60/056,908	22-Aug-1997
60/056,886	22-Aug-1997
60/040,710	14-Mar-1997
60/050,934	30-May-1997
60/048,100	30-May-1997

60/048,189	30-May-1997
60/048,357	30-May-1997
60/040,762	14-Mar-1997
60/041,277	21-Mar-1997
60/048,135	30-May-1997
60/048,350	30-May-1997
60/048,094	30-May-1997
60/048,188	30-May-1997
60/048,099	30-May-1997
60/050,937	30-May-1997
60/042,344	21-Mar-1997
60/048,352	30-May-1997
60/048,187	30-May-1997
60/048,186	30-May-1997
60/048,095	30-May-1997
60/048,131	30-May-1997
60/048,069	30-May-1997
60/041,276	21-Mar-1997
60/048,096	30-May-1997
60/048,154	30-May-1997
60/048,160	30-May-1997
60/041,281	21-Mar-1997
60/048,355	30-May-1997
60/048,351	30-May-1997
60/048,068	30-May-1997
60/042,825	08-Apr-1997
60/048,184	30-May-1997
60/042,727	08-Apr-1997
60/048,070	30-May-1997
60/042,728	08-Apr-1997
60/042,726	08-Apr-1997
60/042,754	08-Apr-1997
60/048,190	30-May-1997
60/044,039	30-May-1997
60/048,093	30-May-1997
60/057,645	05-Sep-1997
60/049,375	06-Jun-1997
60/048,885	06-Jun-1997
60/057,668	05-Sep-1997
60/057,642	05-Sep-1997
60/057,635	05-Sep-1997
60/048,881	06-Jun-1997
60/048,880	06-Jun-1997
60/049,020	06-Jun-1997
60/057,667	05-Sep-1997

60/057,666	05-Sep-1997
60/048,876	06-Jun-1997
60/057,627	05-Sep-1997
60/048,896	06-Jun-1997
60/057,764	05-Sep-1997
60/048,895	06-Jun-1997
60/048,884	06-Jun-1997
60/057,769	05-Sep-1997
60/057,643	05-Sep-1997
60/048,894	06-Jun-1997
60/048,971	06-Jun-1997
60/057,763	05-Sep-1997
60/057,584	05-Sep-1997
60/048,964	06-Jun-1997
60/048,893	06-Jun-1997
60/057,661	05-Sep-1997
60/048,899	06-Jun-1997
60/057,647	05-Sep-1997
60/048,882	06-Jun-1997
60/057,650	05-Sep-1997
60/048,892	06-Jun-1997
60/048,901	06-Jun-1997
60/048,900	06-Jun-1997
60/057,646	05-Sep-1997
60/057,651	05-Sep-1997
60/057,662	05-Sep-1997
60/048,915	06-Jun-1997
60/057,654	05-Sep-1997
60/048,916	06-Jun-1997
60/048,972	06-Jun-1997
60/057,775	05-Sep-1997
60/057,644	05-Sep-1997
60/049,019	06-Jun-1997
60/057,765	05-Sep-1997
60/048,970	06-Jun-1997
60/057,762	05-Sep-1997
60/057,774	05-Sep-1997
60/057,649	05-Sep-1997
60/057,648	05-Sep-1997
60/049,374	06-Jun-1997
60/048,875	06-Jun-1997
60/049,373	06-Jun-1997
60/057,771	05-Sep-1997
60/048,917	06-Jun-1997
60/048,949	06-Jun-1997

60/057,770	05-Sep-1997
60/048,897	06-Jun-1997
60/057,761	05-Sep-1997
60/057,776	05-Sep-1997
60/057,760	05-Sep-1997
60/048,974	06-Jun-1997
60/048,883	06-Jun-1997
60/048,898	06-Jun-1997
60/057,778	05-Sep-1997
60/057,629	05-Sep-1997
60/057,777	05-Sep-1997
60/048,962	06-Jun-1997
60/048,963	06-Jun-1997
60/048,878	06-Jun-1997
60/048,877	06-Jun-1997
60/057,628	05-Sep-1997
60/057,634	05-Sep-1997
60/058,669	12-Sep-1997
60/058,668	12-Sep-1997
60/058,750	12-Sep-1997
60/049,566	13-Jun-1997
60/052,989	13-Jun-1997
60/049,608	13-Jun-1997
60/049,609	13-Jun-1997
60/049,607	13-Jun-1997
60/058,665	12-Sep-1997
60/058,971	12-Sep-1997
60/058,972	12-Sep-1997
60/058,975	12-Sep-1997
60/049,611	13-Jun-1997
60/050,901	13-Jun-1997
60/056,250	29-Aug-1997
60/056,296	29-Aug-1997
60/056,293	29-Aug-1997
60/048,356	30-May-1997
60/048,101	30-May-1997
60/050,935	30-May-1997
60/049,550	13-Jun-1997
60/049,610	13-Jun-1997
60/060,841	02-Oct-1997
60/060,834	02-Oct-1997
60/061,060	02-Oct-1997
60/049,606	13-Jun-1997
60/049,548	13-Jun-1997
60/049,549	13-Jun-1997

60/060,865	02-Oct-1997
60/060,844	02-Oct-1997
60/049,547	13-Jun-1997
60/061,059	02-Oct-1997
60/051,480	01-Jul-1997
60/051,381	01-Jul-1997
60/058,663	12-Sep-1997
60/058,598	12-Sep-1997
60/051,925	08-Jul-1997
60/052,793	08-Jul-1997
60/058,664	12-Sep-1997
60/058,660	12-Sep-1997
60/058,661	12-Sep-1997
60/051,926	08-Jul-1997
60/051,929	08-Jul-1997
60/058,785	12-Sep-1997
60/055,722	18-Aug-1997
60/051,932	08-Jul-1997
60/052,732	08-Jul-1997
60/052,803	08-Jul-1997
60/055,949	18-Aug-1997
60/055,948	18-Aug-1997
60/055,723	18-Aug-1997
60/051,931	08-Jul-1997
60/051,930	08-Jul-1997
60/051,920	08-Jul-1997
60/051,918	08-Jul-1997
60/051,916	08-Jul-1997
60/055,953	18-Aug-1997
60/055,950	18-Aug-1997
60/055,947	18-Aug-1997
60/055,964	18-Aug-1997
60/056,360	18-Aug-1997
60/055,954	18-Aug-1997
60/055,984	18-Aug-1997
60/055,684	18-Aug-1997
60/052,795	08-Jul-1997
60/052,733	08-Jul-1997
60/051,928	08-Jul-1997
60/051,919	08-Jul-1997
60/055,952	18-Aug-1997
60/055,985	18-Aug-1997
60/056,359	18-Aug-1997
60/055,725	18-Aug-1997
60/052,661	16-Jul-1997

60/052,870	16-Jul-1997
60/052,871	16-Jul-1997
60/052,872	16-Jul-1997
60/052,875	16-Jul-1997
60/052,873	16-Jul-1997
60/052,874	16-Jul-1997
60/055,724	18-Aug-1997
60/055,726	18-Aug-1997
60/056,361	18-Aug-1997
60/055,946	18-Aug-1997
60/053,441	22-Jul-1997
60/053,440	22-Jul-1997
60/055,683	18-Aug-1997
60/055,989	18-Aug-1997
60/053,442	22-Jul-1997
60/054,209	30-Jul-1997
60/055,968	18-Aug-1997
60/055,972	18-Aug-1997
60/055,969	18-Aug-1997
60/054,212	30-Jul-1997
60/054,234	30-Jul-1997
60/055,986	18-Aug-1997
60/055,386	05-Aug-1997
60/055,970	18-Aug-1997
60/054,807	05-Aug-1997
60/056,561	19-Aug-1997
60/054,214	30-Jul-1997
60/054,218	30-Jul-1997
60/054,236	30-Jul-1997
60/054,215	30-Jul-1997
60/056,543	19-Aug-1997
60/056,729	19-Aug-1997
60/056,534	19-Aug-1997
60/054,217	30-Jul-1997
60/054,213	30-Jul-1997
60/056,730	19-Aug-1997
60/056,727	19-Aug-1997
60/054,211	30-Jul-1997
60/056,554	19-Aug-1997
60/055,309	05-Aug-1997
60/056,563	19-Aug-1997
60/054,798	05-Aug-1997
60/056,557	19-Aug-1997
60/055,312	05-Aug-1997
60/056,371	19-Aug-1997



60/056,732	19-Aug-1997
60/055,310	05-Aug-1997
60/056,556	19-Aug-1997
60/056,535	19-Aug-1997
60/056,369	19-Aug-1997
60/056,555	19-Aug-1997
60/056,370	19-Aug-1997
60/054,804	05-Aug-1997
60/056,731	19-Aug-1997
60/056,366	19-Aug-1997
60/054,809	05-Aug-1997
60/054,806	05-Aug-1997
60/054,803	05-Aug-1997
60/056,364	19-Aug-1997
60/055,311	05-Aug-1997
60/056,367	19-Aug-1997
60/056,365	19-Aug-1997
60/054,808	05-Aug-1997
60/056,368	19-Aug-1997
60/056,726	19-Aug-1997
60/056,728	19-Aug-1997
60/056,628	19-Aug-1997
60/056,629	19-Aug-1997
60/056,271	29-Aug-1997
60/056,247	29-Aug-1997
60/056,073	29-Aug-1997
60/056,270	29-Aug-1997
60/057,626	05-Sep-1997
60/057,663	05-Sep-1997
60/057,669	05-Sep-1997
60/058,974	12-Sep-1997
60/058,973	12-Sep-1997
60/058,667	12-Sep-1997
60/058,666	12-Sep-1997
60/060,837	02-Oct-1997
60/060,862	02-Oct-1997
60/060,839	02-Oct-1997
60/060,866	02-Oct-1997
60/060,843	02-Oct-1997
60/060,836	02-Oct-1997
60/060,874	02-Oct-1997
60/060,838	02-Oct-1997
60/060,884	02-Oct-1997
60/060,833	02-Oct-1997
60/060,880	02-Oct-1997

60/061,529	09-Oct-1997
60/071,498	09-Oct-1997
60/061,463	09-Oct-1997
60/061,536	09-Oct-1997
60/061,527	09-Oct-1997
60/061,532	09-Oct-1997
60/063,100	24-Oct-1997
60/062,784	24-Oct-1997
60/063,148	24-Oct-1997
60/063,387	24-Oct-1997
60/063,386	24-Oct-1997
60/063,089	24-Oct-1997
60/063,091	24-Oct-1997
60/063,090	24-Oct-1997
60/063,092	24-Oct-1997
60/063,111	24-Oct-1997
60/063,109	24-Oct-1997
60/063,110	24-Oct-1997
60/063,101	24-Oct-1997
60/063,098	24-Oct-1997
60/063,097	24-Oct-1997
60/074,037	09-Feb-1998
60/074,157	09-Feb-1998
60/074,118	09-Feb-1998
60/076,053	26-Feb-1998
60/076,057	26-Feb-1998
60/076,054	26-Feb-1998
60/076,052	26-Feb-1998
60/076,051	26-Feb-1998
60/113,006	18-Dec-1998
60/112,809	17-Dec-1998
60/116,330	19-Jan-1999
60/119,468	10-Feb-1999
60/125,055	18-Mar-1999
60/128,693	09-Apr-1999
60/130,991	26-Apr-1999
60/137,725	07-Jun-1999
60/145,220	23-Jul-1999
60/149,182	17-Aug-1999
60/152,317	03-Sep-1999
60/152,315	03-Sep-1999
60/155,709	24-Sep-1999
60/163,085	02-Nov-1999
60/172,411	17-Dec-1999
60/134,068	13-May-1999

US00/12788	11-May-2000
60/167,061	23-Nov-1999
60/124,146	12-Mar-1999
US00/06043	09-Mar-2000
60/124,093	12-Mar-1999
US00/06012	09-Mar-2000
60/166,989	23-Nov-1999
US00/06058	09-Mar-2000
60/124,145	12-Mar-1999
60/168,654	03-Dec-1999
60/124,099	12-Mar-1999
US00/06044	09-Mar-2000
60/168,661	03-Dec-1999
60/124,096	12-Mar-1999
60/168,622	03-Dec-1999
US00/06059	09-Mar-2000
US00/06042	09-Mar-2000
60/124,143	12-Mar-1999
60/168,663	03-Dec-1999
60/124,095	12-Mar-1999
US00/06014	09-Mar-2000
60/138,598	11-Jun-1999
60/168,665	03-Dec-1999
US00/06013	09-Mar-2000
60/138,626	11-Jun-1999
60/168,662	03-Dec-1999
60/125,360	19-Mar-1999
US00/06049	09-Mar-2000
60/168,667	03-Dec-1999
60/138,574	11-Jun-1999
60/124,144	12-Mar-1999
60/124,142	12-Mar-1999
60/138,597	11-Jun-1999
60/168,666	03-Dec-1999
US00/06057	09-Mar-2000
60/125,359	19-Mar-1999
60/168,664	03-Dec-1999
US00/06824	16-Mar-2000
60/126,051	23-Mar-1999
60/169,906	10-Dec-1999
US00/06765	16-Mar-2000
60/125,362	19-Mar-1999
US00/06792	16-Mar-2000
60/169,980	10-Dec-1999
US00/06830	16-Mar-2000

60/125,361	19-Mar-1999
60/169,910	10-Dec-1999
60/125,812	23-Mar-1999
60/169,936	10-Dec-1999
US00/06782	16-Mar-2000
60/126,054	23-Mar-1999
US00/06822	16-Mar-2000
60/169,916	10-Dec-1999
US00/06791	16-Mar-2000
60/169,946	10-Dec-1999
60/125,815	23-Mar-1999
60/125,358	19-Mar-1999
US00/06828	16-Mar-2000
60/169,616	08-Dec-1999
60/125,364	19-Mar-1999
60/169,623	08-Dec-1999
US00/06823	16-Mar-2000
60/169,617	08-Dec-1999
US00/06781	16-Mar-2000
60/125,363	19-Mar-1999
60/172,410	17-Dec-1999
60/126,502	26-Mar-1999
US00/07505	22-Mar-2000
60/126,503	26-Mar-1999
60/172,409	17-Dec-1999
US00/07440	22-Mar-2000
60/126,505	26-Mar-1999
60/172,412	17-Dec-1999
US00/07506	22-Mar-2000
60/126,594	26-Mar-1999
60/172,408	17-Dec-1999
US00/07507	22-Mar-2000
60/172,413	17-Dec-1999
US00/07535	22-Mar-2000
60/126,511	26-Mar-1999
60/126,595	26-Mar-1999
60/171,549	22-Dec-1999
US00/07525	22-Mar-2000
60/171,504	22-Dec-1999
60/126,598	26-Mar-1999
US00/07534	22-Mar-2000
US00/07483	22-Mar-2000
60/171,552	22-Dec-1999
60/126,596	26-Mar-1999
60/126,600	26-Mar-1999

US00/07526	22-Mar-2000
60/171,550	22-Dec-1999
60/126,501	26-Mar-1999
60/171,551	22-Dec-1999
US00/07527	22-Mar-2000
60/126,504	26-Mar-1999
US00/07661	23-Mar-2000
60/174,847	07-Jan-2000
60/174,853	07-Jan-2000
US00/07579	23-Mar-2000
60/126,509	26-Mar-1999
60/174,852	07-Jan-2000
60/242,710	25-Oct-2000
60/126,506	26-Mar-1999
US00/07723	23-Mar-2000
60/174,850	07-Jan-2000
US00/07724	23-Mar-2000
60/126,510	26-Mar-1999
60/138,573	11-Jun-1999
US00/14929	01-Jun-2000
60/174,851	07-Jan-2000
60/126,508	26-Mar-1999
US00/07722	23-Mar-2000
60/174,871	07-Jan-2000
US00/07578	23-Mar-2000
60/174,872	07-Jan-2000
60/126,507	26-Mar-1999
60/174,877	07-Jan-2000
US00/07726	23-Mar-2000
60/126,597	26-Mar-1999
60/126,601	26-Mar-1999
US00/07677	23-Mar-2000
60/176,064	14-Jan-2000
60/154,373	17-Sep-1999
60/176,063	14-Jan-2000
US00/07725	23-Mar-2000
60/126,602	26-Mar-1999
60/176,052	14-Jan-2000
US00/09070	06-Apr-2000
60/128,695	09-Apr-1999
US00/08982	06-Apr-2000
60/128,696	09-Apr-1999
60/176,069	14-Jan-2000
60/176,068	14-Jan-2000
US00/08983	06-Apr-2000

60/128,703	09-Apr-1999
60/176,929	20-Jan-2000
US00/09067	06-Apr-2000
60/128,697	09-Apr-1999
US00/09066	06-Apr-2000
60/176,926	20-Jan-2000
60/128,698	09-Apr-1999
US00/09068	06-Apr-2000
60/128,699	09-Apr-1999
60/177,050	20-Jan-2000
60/177,166	20-Jan-2000
US00/08981	06-Apr-2000
60/128,701	09-Apr-1999
60/128,700	09-Apr-1999
60/176,930	20-Jan-2000
US00/08980	06-Apr-2000
60/128,694	09-Apr-1999
US00/09071	06-Apr-2000
60/176,931	20-Jan-2000
US00/09069	06-Apr-2000
60/177,049	20-Jan-2000
60/128,702	09-Apr-1999
60/138,629	11-Jun-1999
US00/15136	01-Jun-2000
60/138,628	11-Jun-1999
US00/14926	01-Jun-2000
60/138,631	11-Jun-1999
US00/14963	01-Jun-2000
60/138,632	11-Jun-1999
US00/15135	01-Jun-2000
US00/14934	01-Jun-2000
60/138,599	11-Jun-1999
60/138,572	11-Jun-1999
US00/14933	01-Jun-2000
US00/15137	01-Jun-2000
60/138,625	11-Jun-1999
60/138,633	11-Jun-1999
US00/14928	01-Jun-2000
60/138,630	11-Jun-1999
US00/14973	01-Jun-2000
US00/14964	01-Jun-2000
60/138,627	11-Jun-1999
US00/26376	26-Sep-2000
60/155,808	27-Sep-1999
US00/26371	26-Sep-2000

60/155,804	27-Sep-1999
60/155,807	27-Sep-1999
US00/26324	26-Sep-2000
US00/26323	26-Sep-2000
60/155,805	27-Sep-1999
US00/26337	26-Sep-2000
60/155,806	27-Sep-1999
60/201,194	02-May-2000
60/212,142	16-Jun-2000
US00/29363	25-Oct-2000
60/215,139	30-Jun-2000
60/162,239	29-Oct-1999
US00/29360	25-Oct-2000
60/162,211	29-Oct-1999
60/215,138	30-Jun-2000
60/162,240	29-Oct-1999
US00/29362	25-Oct-2000
60/215,131	30-Jun-2000
US00/29365	25-Oct-2000
60/162,237	29-Oct-1999
60/219,666	21-Jul-2000
60/215,134	30-Jun-2000
US00/29364	25-Oct-2000
60/162,238	29-Oct-1999
60/163,580	05-Nov-1999
60/215,130	30-Jun-2000
US00/30040	01-Nov-2000
US00/30037	01-Nov-2000
60/163,577	05-Nov-1999
60/215,137	30-Jun-2000
60/215,133	30-Jun-2000
60/163,581	05-Nov-1999
US00/30045	01-Nov-2000
60/163,576	05-Nov-1999
US00/30036	01-Nov-2000
60/221,366	27-Jul-2000
60/221,367	27-Jul-2000
60/195,296	07-Apr-2000
US00/30039	01-Nov-2000
60/164,344	09-Nov-1999
60/221,142	27-Jul-2000
US00/30654	08-Nov-2000
60/164,835	12-Nov-1999
60/164,744	12-Nov-1999
US00/30628	08-Nov-2000

60/215,140	30-Jun-2000
US00/30653	08-Nov-2000
60/164,735	12-Nov-1999
60/221,193	27-Jul-2000
60/222,904	03-Aug-2000
60/164,825	12-Nov-1999
US00/30629	08-Nov-2000
60/224,007	04-Aug-2000
US00/30679	08-Nov-2000
60/164,834	12-Nov-1999
60/164,750	12-Nov-1999
60/215,128	30-Jun-2000
US00/30674	08-Nov-2000
60/166,415	19-Nov-1999
US00/31162	15-Nov-2000
60/215,136	30-Jun-2000
60/166,414	19-Nov-1999
60/219,665	21-Jul-2000
US00/31282	15-Nov-2000
60/215,132	30-Jun-2000
60/164,731	12-Nov-1999
US00/30657	08-Nov-2000
60/256,968	21-Dec-2000
60/226,280	18-Aug-2000
US01/01396	17-Jan-2001
60/226,380	18-Aug-2000
US01/01387	17-Jan-2001
60/259,803	05-Jan-2001
US01/01567	17-Jan-2001
60/228,084	28-Aug-2000
US01/01431	17-Jan-2001
60/231,968	12-Sep-2000
60/234,211	20-Sep-2000
US01/00544	09-Jan-2001
60/226,282	18-Aug-2000
US01/01435	17-Jan-2001
60/232,104	12-Sep-2000
US01/01386	17-Jan-2001
60/234,210	20-Sep-2000
US01/01565	17-Jan-2001
60/259,805	05-Jan-2001
US01/01394	17-Jan-2001
60/226,278	18-Aug-2000
60/259,678	05-Jan-2001
60/226,279	18-Aug-2000



US01/01434	17-Jan-2001
60/226,281	18-Aug-2000
US01/01397	17-Jan-2001
60/231,969	12-Sep-2000
US01/01385	17-Jan-2001
60/228,086	28-Aug-2000
60/259,516	04-Jan-2001
US01/01384	17-Jan-2001
60/228,083	28-Aug-2000
60/259,804	05-Jan-2001
US01/01383	17-Jan-2001
60/064,988	07-Nov-1997
60/064,912	07-Nov-1997
60/064,900	07-Nov-1997
60/064,983	07-Nov-1997
60/064,911	07-Nov-1997
60/064,985	07-Nov-1997
60/064,908	07-Nov-1997
60/064,984	07-Nov-1997
60/064,987	07-Nov-1997
60/066,100	17-Nov-1997
60/066,095	17-Nov-1997
60/066,089	17-Nov-1997
60/066,090	17-Nov-1997
60/066,094	17-Nov-1997
60/068,007	18-Dec-1997
60/068,006	18-Dec-1997
60/068,008	18-Dec-1997
60/068,057	18-Dec-1997
60/070,923	18-Dec-1997
60/068,053	18-Dec-1997
60/068,054	18-Dec-1997
60/068,064	18-Dec-1997
60/068,369	19-Dec-1997
60/068,367	19-Dec-1997
60/068,169	19-Dec-1997
60/068,365	19-Dec-1997
60/070,704	07-Jan-1998
60/070,657	07-Jan-1998
60/070,658	07-Jan-1998
60/070,692	07-Jan-1998
60/073,160	30-Jan-1998
60/073,159	30-Jan-1998
60/073,165	30-Jan-1998
60/073,164	30-Jan-1998

60/073,167	30-Jan-1998
60/073,162	30-Jan-1998
60/073,161	30-Jan-1998
60/073,170	30-Jan-1998
60/074,341	09-Feb-1998
60/074,141	09-Feb-1998
60/077,714	12-Mar-1998
60/077,687	12-Mar-1998
60/077,696	12-Mar-1998
60/077,686	12-Mar-1998
60/078,574	19-Mar-1998
60/078,566	19-Mar-1998
60/078,576	19-Mar-1998
60/078,577	19-Mar-1998
60/078,581	19-Mar-1998
60/078,573	19-Mar-1998
60/078,578	19-Mar-1998
60/078,563	19-Mar-1998
60/080,313	01-Apr-1998
60/080,312	01-Apr-1998
60/080,314	01-Apr-1998
60/085,105	12-May-1998
60/085,180	12-May-1998
60/085,093	12-May-1998
60/085,094	12-May-1998
60/085,928	18-May-1998
60/085,920	18-May-1998
60/085,906	18-May-1998
60/085,927	18-May-1998
60/085,924	18-May-1998
60/085,925	18-May-1998
60/085,921	18-May-1998
60/085,922	18-May-1998
60/085,923	18-May-1998
60/090,112	22-Jun-1998
60/089,507	16-Jun-1998
60/089,508	16-Jun-1998
60/089,510	16-Jun-1998
60/089,509	16-Jun-1998
60/090,113	22-Jun-1998
60/092,956	15-Jul-1998
60/092,921	15-Jul-1998
60/092,922	15-Jul-1998
60/094,657	30-Jul-1998
60/095,486	05-Aug-1998

60/096,319	12-Aug-1998
60/095,455	06-Aug-1998
60/095,454	06-Aug-1998
60/097,917	25-Aug-1998
60/098,634	31-Aug-1998
60/101,546	23-Sep-1998
60/102,895	02-Oct-1998
60/108,207	12-Nov-1998
60/236,326	29-Sep-2000
US01/01432	17-Jan-2001
US98/04482	06-Mar-1998
09/148,545	04-Sep-1998
09/149,476	08-Sep-1998
US98/04493	06-Mar-1998
60/190,068	17-Mar-2000
US98/04858	12-Mar-1998
09/152,060	11-Sep-1998
60/265,583	02-Feb-2001
09/154,707	17-Sep-1998
US98/05311	19-Mar-1998
US98/06801	07-Apr-1998
09/166,780	06-Oct-1998
09/189,144	10-Nov-1998
US98/10868	28-May-1998
60/184,836	24-Feb-2000
60/193,170	29-Mar-2000
US98/11422	04-Jun-1998
09/205,258	04-Dec-1998
US98/12125	11-Jun-1998
09/209,462	11-Dec-1998
09/213,365	17-Dec-1998
US98/13608	30-Jun-1998
60/239,899	13-Oct-2000
US98/13684	07-Jul-1998
60/180,909	08-Feb-2000
US98/14613	15-Jul-1998
09/229,982	14-Jan-1999
US98/15949	29-Jul-1998
09/236,557	26-Jan-1999
09/666,984	21-Sep-2000
2,298,852	29-Jul-1998
60/238,291	06-Oct-2000
US98/16235	04-Aug-1998
09/244,112	04-Feb-1999
09/251,329	17-Feb-1999

US98/17044	18-Aug-1998
09/716,128	17-Nov-2000
09/729,835	06-Dec-2000
US98/17709	27-Aug-1998
09/257,179	25-Feb-1999
US98/18360	03-Sep-1998
60/262,066	18-Jan-2001
09/722,329	28-Nov-2000
09/262,109	04-Mar-1999
US98/20775	01-Oct-1998
09/281,976	31-Mar-1999
09/288,143	08-Apr-1999
60/244,591	01-Nov-2000
US98/21142	08-Oct-1998
US98/22376	23-Oct-1998
09/296,622	23-Apr-1999
60/239,893	13-Oct-2000
09/305,736	05-May-1999
US98/23435	04-Nov-1998
US98/27059	17-Dec-1998
09/334,595	17-Jun-1999
09/348,457	07-Jul-1999
09/739,907	20-Dec-2000
US99/00108	06-Jan-1999
60/232,150	12-Sep-2000
09/363,044	29-Jul-1999
US99/01621	27-Jan-1999
US99/02293	04-Feb-1999
09/369,247	05-Aug-1999
09/716,129	17-Nov-2000
US99/03939	24-Feb-1999
US99/05721	11-Mar-1999
09/393,022	09-Sep-1999
09/397,945	17-Sep-1999
60/231,846	11-Sep-2000
US99/09847	06-May-1999
09/437,658	10-Nov-1999
US99/13418	15-Jun-1999
60/263,681	24-Jan-2001
60/263,230	23-Jan-2001
09/461,325	14-Dec-1999
US99/15849	14-Jul-1999
60/234,925	25-Sep-2000
US01/00911	12-Jan-2001
09/482,273	13-Jan-2000

09/489,847	24-Jan-2000
US99/17130	29-Jul-1999
US99/19330	24-Aug-1999
09/511,554	23-Feb-2000
09/531,119	20-Mar-2000
US99/22012	22-Sep-1999
US99/26409	09-Nov-1999
09/565,391	05-May-2000
US99/29950	16-Dec-1999
09/591,316	09-Jun-2000
09/618,150	17-Jul-2000
US00/00903	18-Jan-2000
09/628,508	28-Jul-2000
US00/03062	08-Feb-2000
US00/06783	16-Mar-2000
09/661,453	13-Sep-2000
09/684,524	10-Oct-2000
US00/08979	06-Apr-2000
09/726,643	01-Dec-2000
US00/15187	02-Jun-2000
09/756,168	09-Jan-2001
US00/19735	20-Jul-2000
US00/22325	16-Aug-2000
US00/24008	31-Aug-2000
US00/26013	22-Sep-2000
US00/28664	17-Oct-2000
60/277340	21-Mar-01
09/781,417	13-Feb-01
09/789,561	22-Feb-01
09/800,729	08-Mar-01
09/756,168	09-Jan-01

Furthermore, the contents and sequence listings of Application Nos. 09/091,873  
filed June 25, 1998; 60/229,358 filed on April 12, 2000; 60/199,384 filed on April  
25,2000 and 60/256,931 filed on December 21, 2000 are hereby incorporation by reference  
5 in their entirety.

**What is claimed:**

1. An albumin fusion protein comprising a Therapeutic protein:X and albumin comprising the amino acid sequence of SEQ ID NO:18.
2. An albumin fusion protein comprising a Therapeutic protein:X and a fragment or a variant of the amino acid sequence of SEQ ID NO:18, wherein said fragment or variant has albumin activity.
3. The albumin fusion protein of claim 2, wherein said albumin activity is the ability to prolong the shelf life of the Therapeutic protein:X compared to the shelf-life of the Therapeutic protein:X in an unfused state.
4. The albumin fusion protein of claim 2, wherein the fragment or variant comprises the amino acid sequence of amino acids 1-387 of SEQ ID NO:18.
5. An albumin fusion protein comprising a fragment or variant of a Therapeutic protein:X, and albumin comprising the amino acid sequence of SEQ ID NO:18, wherein said fragment or variant has a biological activity of the Therapeutic protein:X.
6. The albumin fusion protein of any one of claims 1-5, wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the N-terminus of albumin, or the N-terminus of the fragment or variant of albumin.
7. The albumin fusion protein of any one of claims 1-5, wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the C-terminus of albumin, or the C-terminus of the fragment or variant of albumin.
8. The albumin fusion protein of any one of claims 1-5, wherein the Therapeutic protein:X, or fragment or variant thereof, is fused to the N-terminus and C-terminus of albumin, or the N-terminus and the C-terminus of the fragment or variant of albumin.

9. The albumin fusion protein of any one of claims 1-5, which comprises a first Therapeutic protein:X, or fragment or variant thereof, and a second Therapeutic protein:X, or fragment or variant thereof, wherein said first Therapeutic protein:X, or fragment or variant thereof, is different from said second Therapeutic protein:X, or fragment or variant thereof.

10. The albumin fusion protein of any one of claims 1-8, wherein the Therapeutic protein:X, or fragment or variant thereof, is separated from the albumin or the fragment or variant of albumin by a linker.

11. The albumin fusion protein of any one of claims 1-8, wherein the albumin fusion protein has the following formula:

R1-L-R2; R2-L-R1; or R1-L-R2-L-R1,

wherein R1 is Therapeutic protein:X, or fragment or variant thereof, L is a peptide linker, and R2 is albumin comprising the amino acid sequence of SEQ ID NO:18 or fragment or variant of albumin.

12. The albumin fusion protein of any one of claims 1-11, wherein the shelf-life of the albumin fusion protein is greater than the shelf-life of the Therapeutic protein:X in an unfused state.

13. The albumin fusion protein of any one of claims 1-11, wherein the in vitro biological activity of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin, or fragment or variant thereof, is greater than the in vitro biological activity of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.

14. The albumin fusion protein of any one of claims 1-11, wherein the in vivo biological activity of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin, or fragment or variant thereof, is greater than the in vivo biological activity of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.

15. An albumin fusion protein comprising a Therapeutic protein:X, or fragment or variant thereof, inserted into an albumin comprising the amino acid sequence of SEQ ID NO:18 or fragment or variant thereof.

16. An albumin fusion protein comprising a Therapeutic protein:X, or fragment or variant thereof, inserted into an albumin comprising an amino acid sequence selected from the group consisting of:

- (a) amino acids 54 to 61 of SEQ ID NO:18;
- (b) amino acids 76 to 89 of SEQ ID NO:18;
- (c) amino acids 92 to 100 of SEQ ID NO:18;
- (d) amino acids 170 to 176 of SEQ ID NO:18;
- (e) amino acids 247 to 252 of SEQ ID NO:18;
- (f) amino acids 266 to 277 of SEQ ID NO:18;
- (g) amino acids 280 to 288 of SEQ ID NO:18;
- (h) amino acids 362 to 368 of SEQ ID NO:18;
- (i) amino acids 439 to 447 of SEQ ID NO:18;
- (j) amino acids 462 to 475 of SEQ ID NO:18;
- (k) amino acids 478 to 486 of SEQ ID NO:18; and
- (l) amino acids 560 to 566 of SEQ ID NO:18.

17. The albumin fusion protein of claims 15 or 16, wherein said albumin fusion protein comprises a portion of albumin sufficient to prolong the shelf-life of the Therapeutic protein:X, or fragment or variant thereof, as compared to the shelf-life of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.

18. The albumin fusion protein of claims 15 or 16, wherein said albumin fusion protein comprises a portion of albumin sufficient to prolong the in vitro biological activity of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin as compared to the in vitro biological activity of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.

19. The albumin fusion protein of claims 15 or 16 wherein said albumin fusion protein comprises a portion of albumin sufficient to prolong the in vivo biological activity

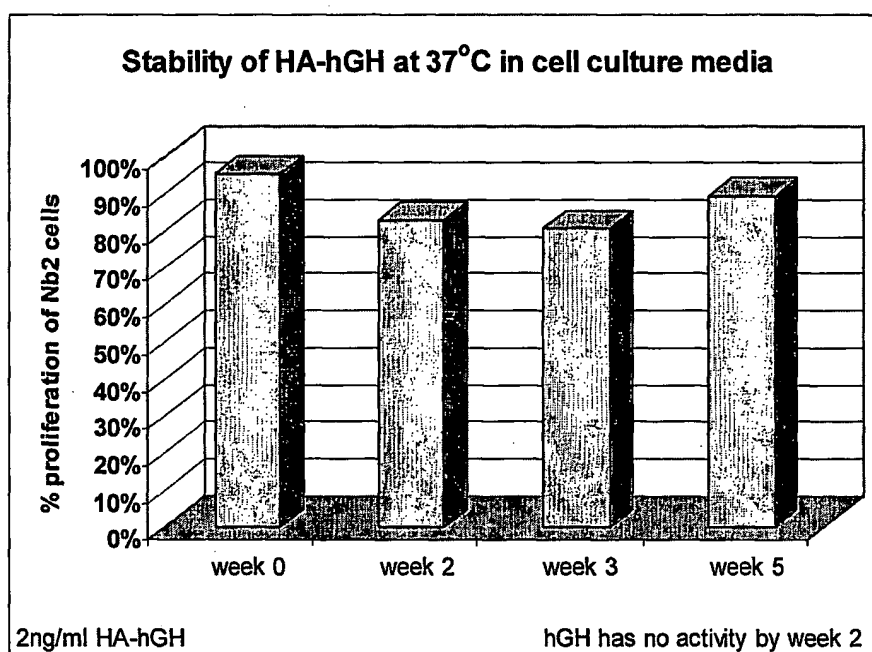


of the Therapeutic protein:X, or fragment or variant thereof, fused to albumin compared to the in vivo biological activity of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.

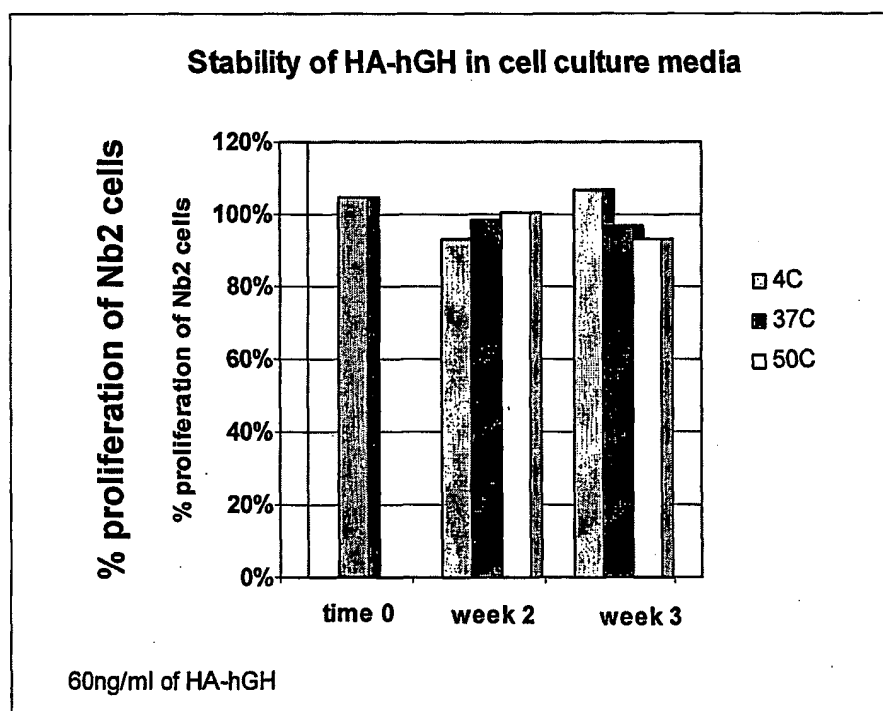
20. The albumin fusion protein of any one of claims 1-19, which is non-glycosylated.
21. The albumin fusion protein of any one of claims 1-19, which is expressed in yeast.
22. The albumin fusion protein of claim 21, wherein the yeast is glycosylation deficient.
23. The albumin fusion protein of claim 21 wherein the yeast is glycosylation and protease deficient.
24. The albumin fusion protein of any one of claims 1-19, which is expressed by a mammalian cell.
25. The albumin fusion protein of any one of claims 1-19, wherein the albumin fusion protein is expressed by a mammalian cell in culture.
26. The albumin fusion protein of any one of claims 1-19, wherein the albumin fusion protein further comprises a secretion leader sequence.
27. A composition comprising the albumin fusion protein of any one of claims 1-26 and a pharmaceutically acceptable carrier.
28. A kit comprising the composition of claim 27.
29. A method of treating a disease or disorder in a patient, comprising the step of administering the albumin fusion protein of any one of claims 1-26.

30. The method of claim 29, wherein the disease or disorder comprises indication:Y.
31. A method of treating a patient with a disease or disorder that is modulated by Therapeutic protein:X, or fragment or variant thereof, comprising the step of administering an effective amount of the albumin fusion protein of any one of claims 1-26.
32. The method of claim 31, wherein the disease or disorder is indication:Y.
33. A method of extending the shelf life of Therapeutic protein:X comprising the step of fusing the Therapeutic protein:X, or fragment or variant thereof, to albumin or a fragment or variant thereof, sufficient to extend the shelf-life of the Therapeutic protein:X, or fragment or variant thereof, compared to the shelf-life of the Therapeutic protein:X, or a fragment or variant thereof, in an unfused state.
34. A nucleic acid molecule comprising a polynucleotide sequence encoding the albumin fusion protein of any one of claims 1-26.
35. A vector comprising the nucleic acid molecule of claim 34.
36. A host cell comprising the nucleic acid molecule of claim 35.

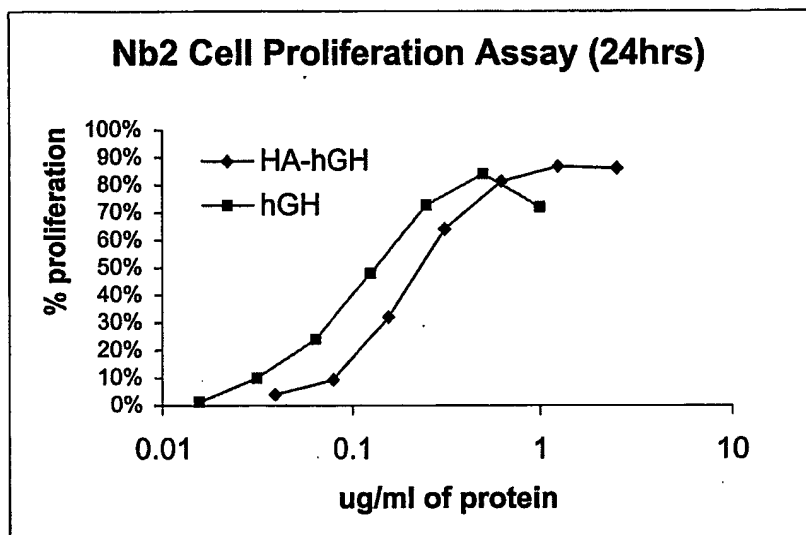
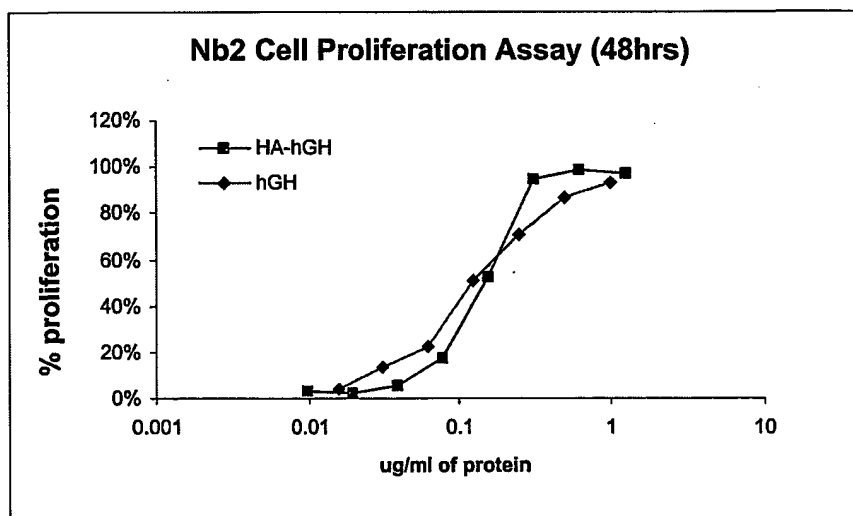
1/20

**Figure 1**

2/20

**Figure 2**

3/20

**Figure 3A****Figure 3B**

4/20

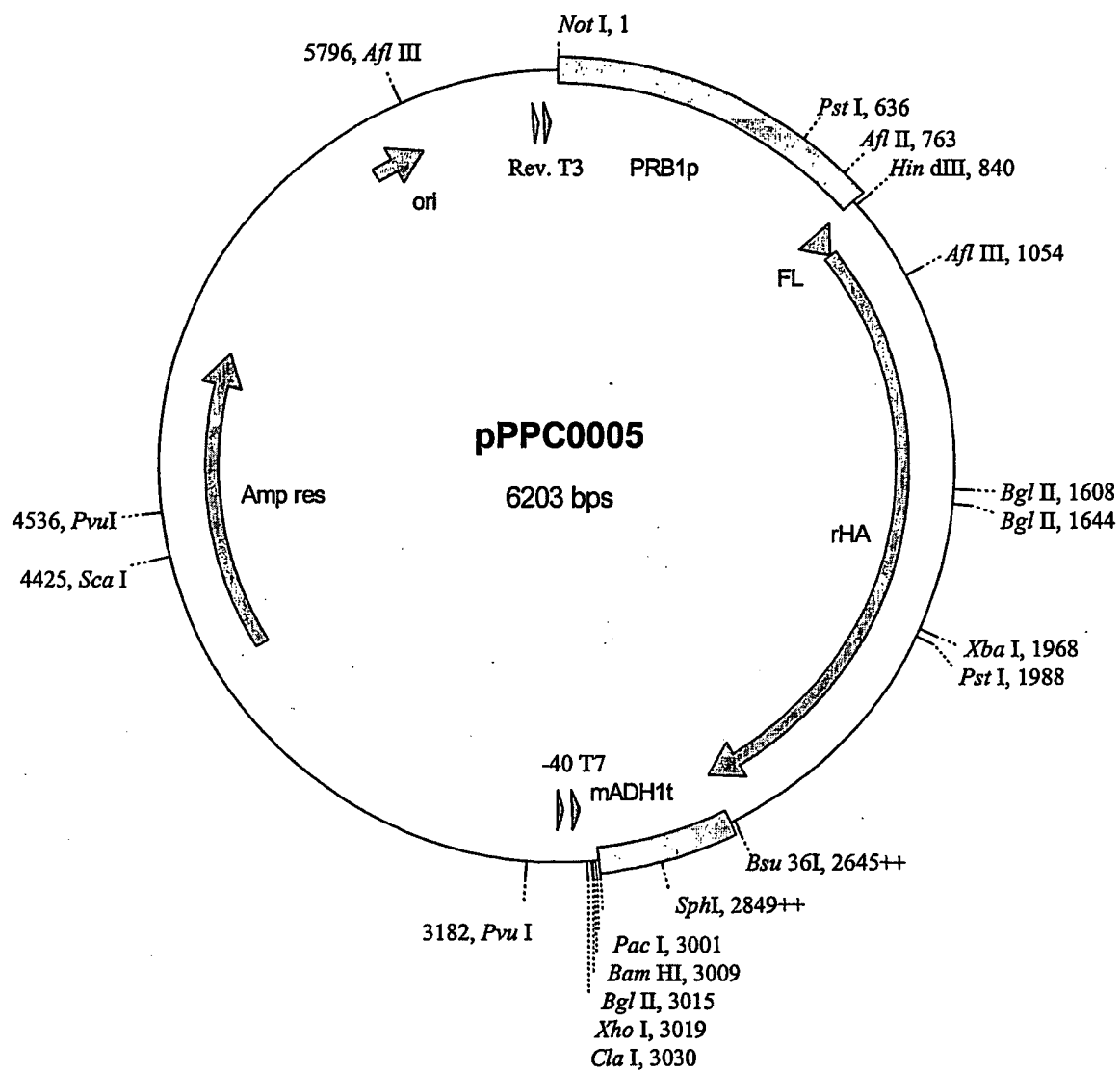
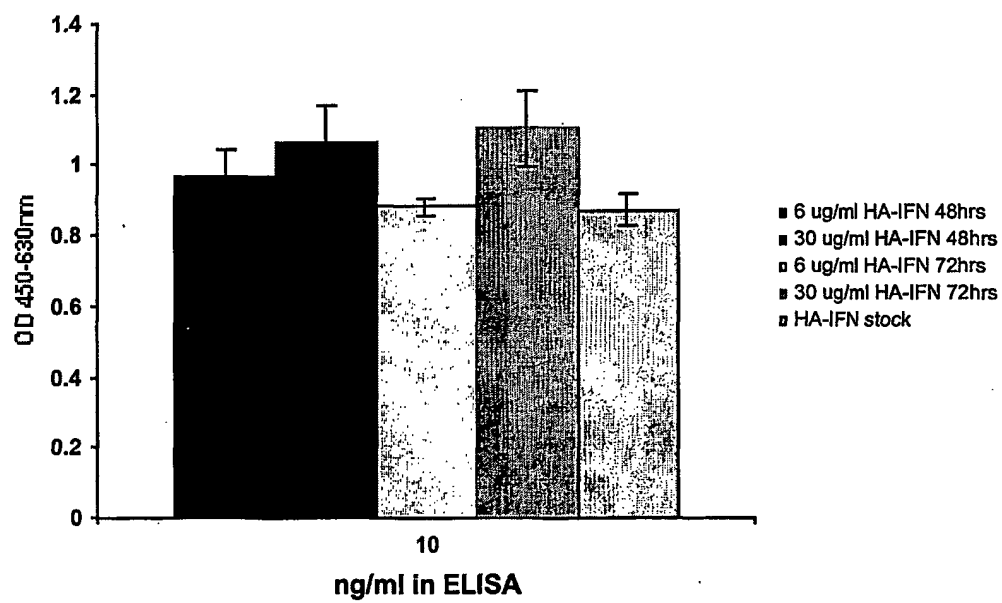


Figure 4

5/20

**Figure 5**

6/20

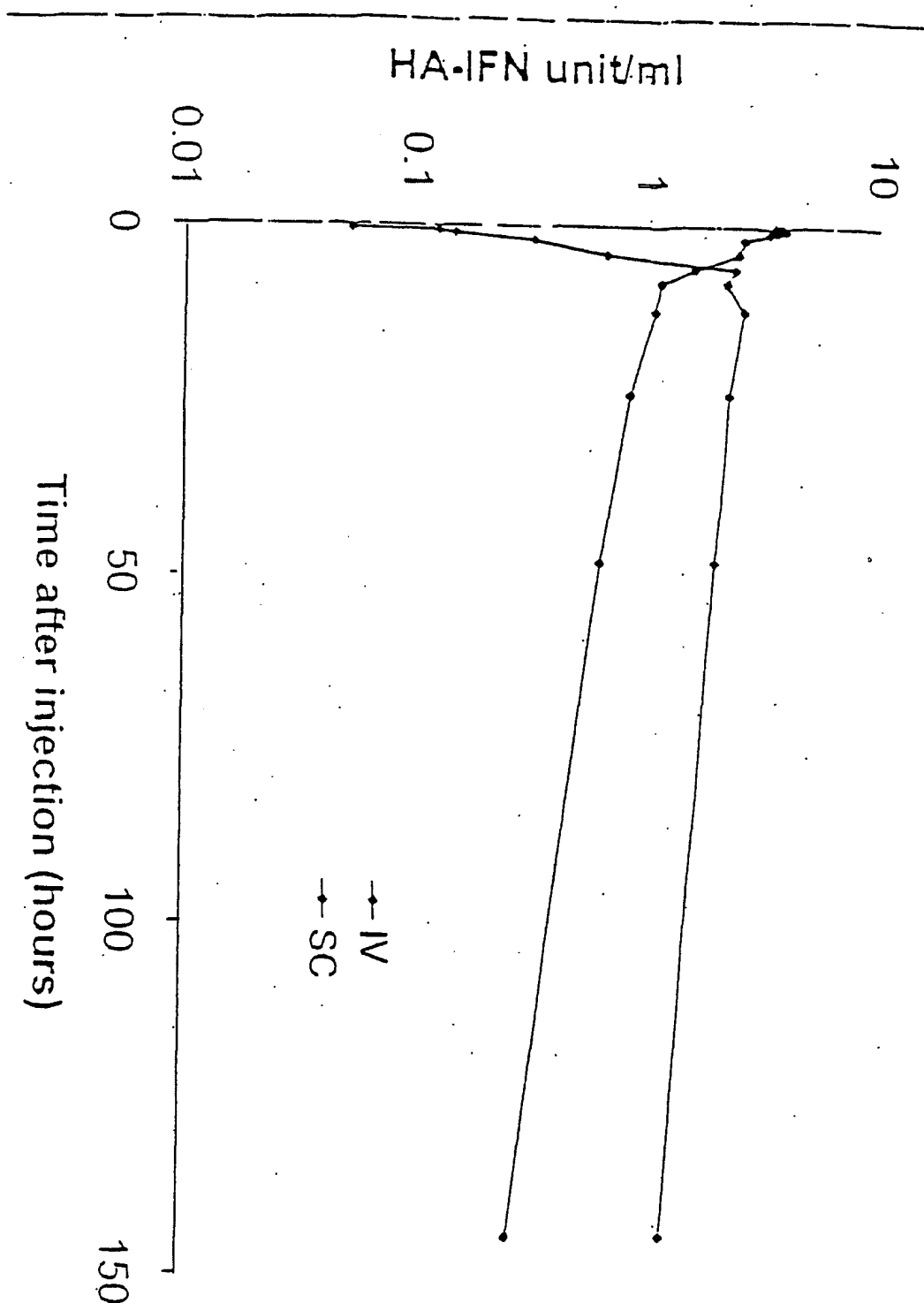


Figure 6



7/20

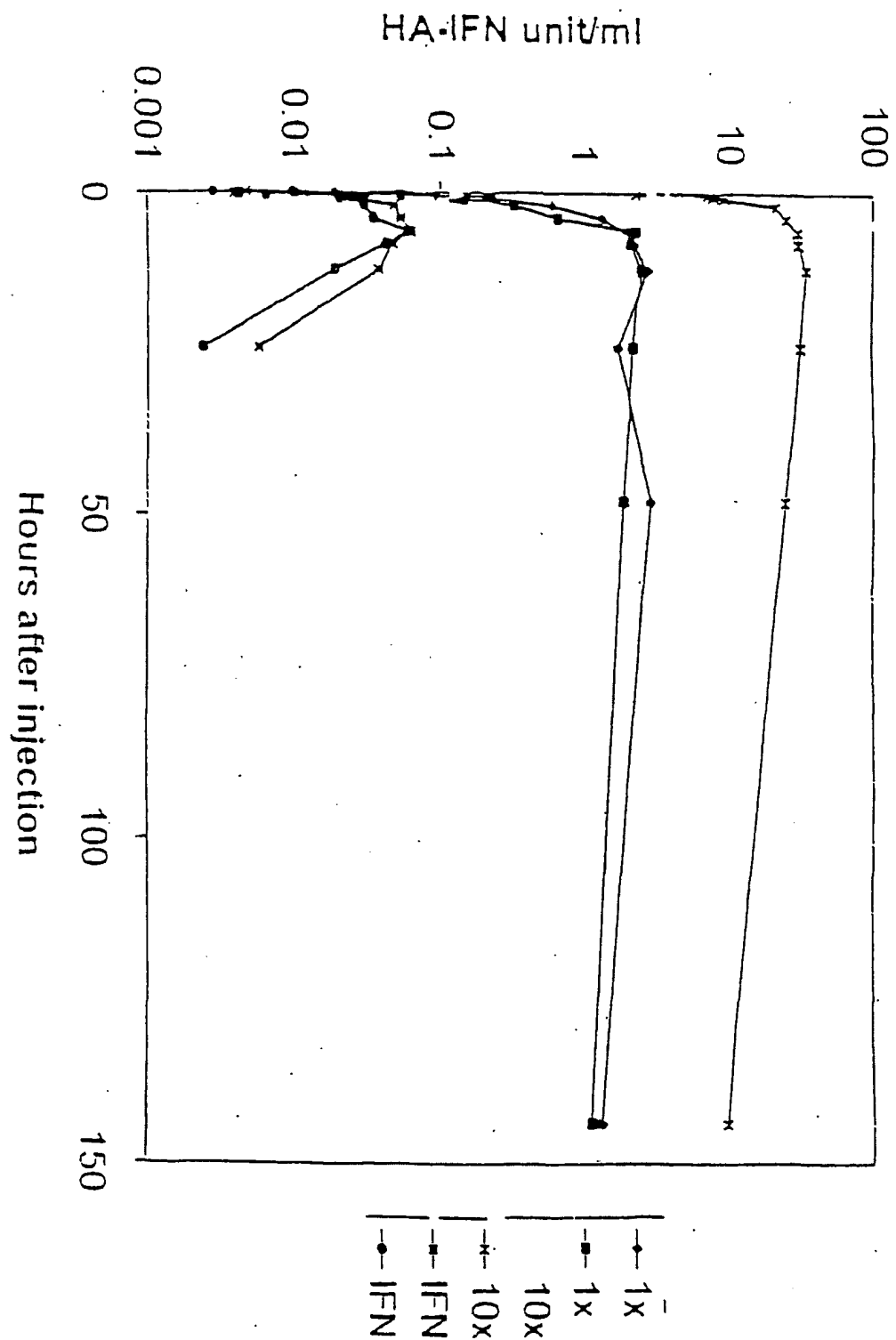
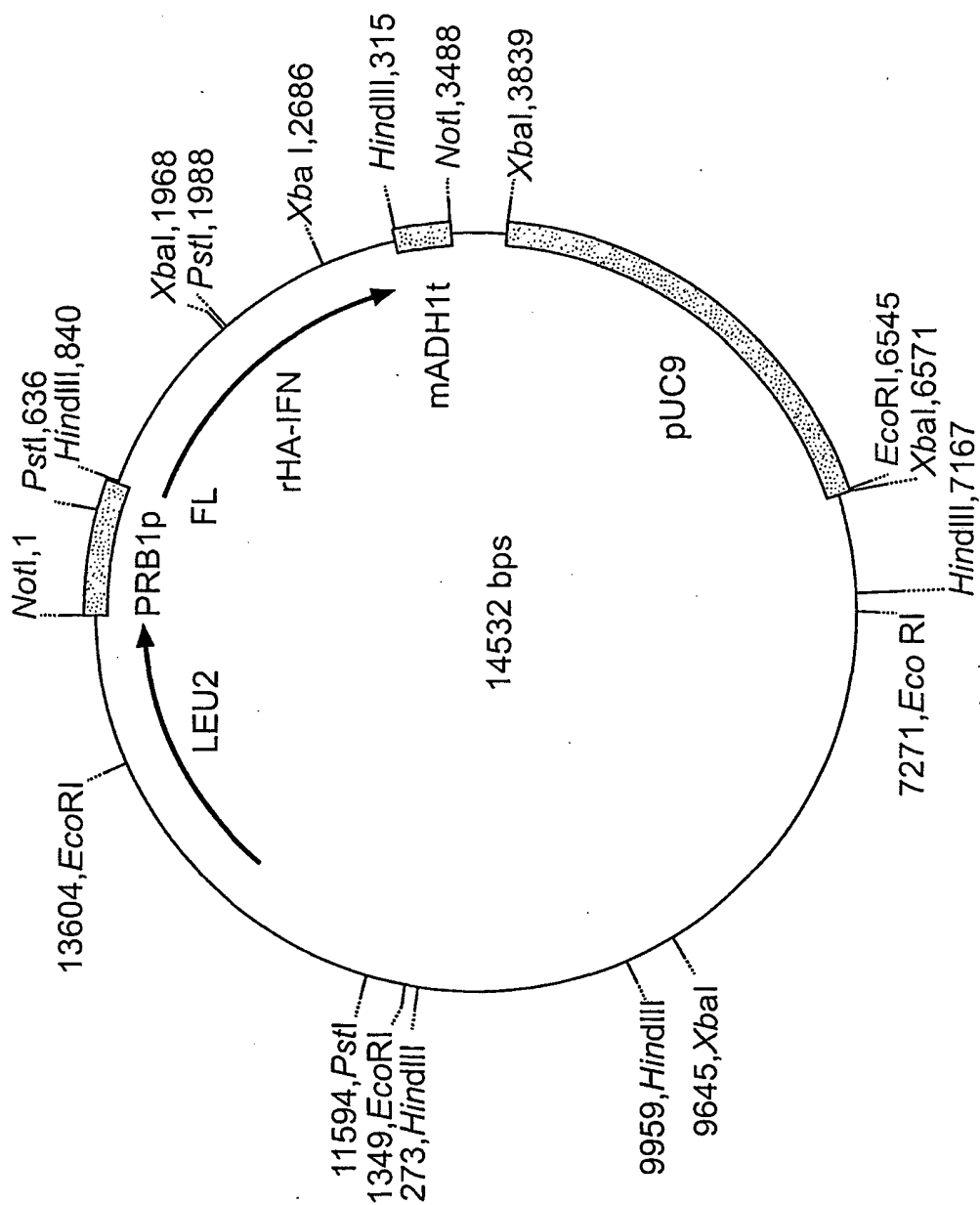


Figure 7

8/20

**FIG. 8**

9/20

**Localisation of 'Loops' based on the HA Crystal Structure**  
**which could be used for Mutation/Insertion**

```

1    DAHKSEVAHR FKDLGEENFK ALVLIAFAQY LQQCPFEDHV KLVNEVTEFA
      HHHHH HHH      HHH HHHHHHHHHHH      HHHHH HHHHHHHHHHH

      I                      II                      III
51   KTCVADESAE NCDKSLHTLF GDKLCTVATL RETYGEMADC CAKOEPERNE
      HHHHH      HHHHH HHHHH      HHHH H      HHHH

101  CFLQHKDDNP NLPRLVRPEV DVMCTAFHDN EETFLKKYLY EIARRHPYFY
      HHHH      H      HHHHHHHHH      HHHHHHHHH HHHHH

      IV
151  APELLFFAKR YKAAFTECCO AADKAACLLP KLDELRDEGK ASSAKQRLKC
      HHHHHHHHHH HHHHHHHHH      HHHHH HHHEHHHHHH HHHHHHHHHH

      V
201  ASLQKFGERA FKAWAVARLS QRFPKAEFAE VSKLVTDLTK VHTECCHGDL
      HHHHH      HH HHHHHHHHHH HH      HHH HHHHHHHHHH HHHHHH HH

      VI                      VII
251  LECADDRADL AKYICENODS ISSKLKECCE KPLLEKSHCI AEVENDEMPA
      HHHHHHHHHH HHHHH      HHHHH      HHHHHHH H

301  DLPSLAADFV ESKDVCKNYA EAKDVFLGMF LYEYARRHPD YSVVLLLRLA
      HHHH      HHHHHH      HHHHHHH HHHHHH      HHHHHHHH

      VIII
351  KTYETTLLEKC CAAADPHECY AKVFDEFKPL VEEPQNLIKQ NCELFEQLGE
      HHHHHHHHHH      HH      H      HHHHH HHHHHHHHHH HHHHHHH

      IX
401  YKFQNALLVR YTKKVPQVST PTLVEVSRNL GKVGSKCCKH PEAKRMPCAE
      HHHHHHHHHH HHHH      H HHHHHHHHHH      HHH      HHHHHHHH

      X                      XI
451  DYLSVVLNQL CVLHEKTPVS DRVTKCCTES LVNRRPPCFSA LEVDETYVPK
      HHHHHHHHHH HHHHH      HHHHHHHHH      HHHHHHHH

501  EFNAETFTFH ADICTLSEKE RQIKKQTALV ELVKHKPKAT KEQLKAVMDD
      HHH      HHH HHHHMMHHH HHH      HHHHHHHH

      XII
551  FAAFVEKCKK ADDKETCFAE EGKKLVAASQ AALGL
      HHHHHHHH      HHHH HHHHHHHHHH HH

```

Loop	Loop
I Val54-Asn61	VII Glu280-His288
II Thr76-Asp89	VIII Ala362-Glu368
III Ala92-Glu100	IX Lys439-Pro447
IV Gln170-Ala176	X Val462-Lys475
V His247-Glu252	XI Thr478-Pro486
VI Glu266-Glu277	XII Lys560-Thr566

Figure 9

10/20

**Examples of Modifications to Loop IV****a. Randomisation of Loop IV.**

IV

```

151  APELLFFAKR YKAAFTECCQ AADKAACLLP KLDEL RDEGK ASSAKQRLKC
      HHHHHHHHHH HHHHHHHHHH          HHHHH HHHHHHHHHHH HHHHHHHHHHH

```

IV

```

151  APELLFFAKR YKAAFTECCX XXXXXXCLLP KLDEL RDEGK ASSAKQRLKC
      HHHHHHHHHH HHHHHHHHHH          HHHHH HHHHHHHHHHH HHHHHHHHHHH

```

**X** represents the mutation of the natural amino acid to any other amino acid. One, more or all of the amino acids can be changed in this manner. This figure indicates all the residues have been changed.

**b. Insertion (or replacement) of Randomised sequence into Loop IV.**

(X)<sub>n</sub>  
↓  
IV

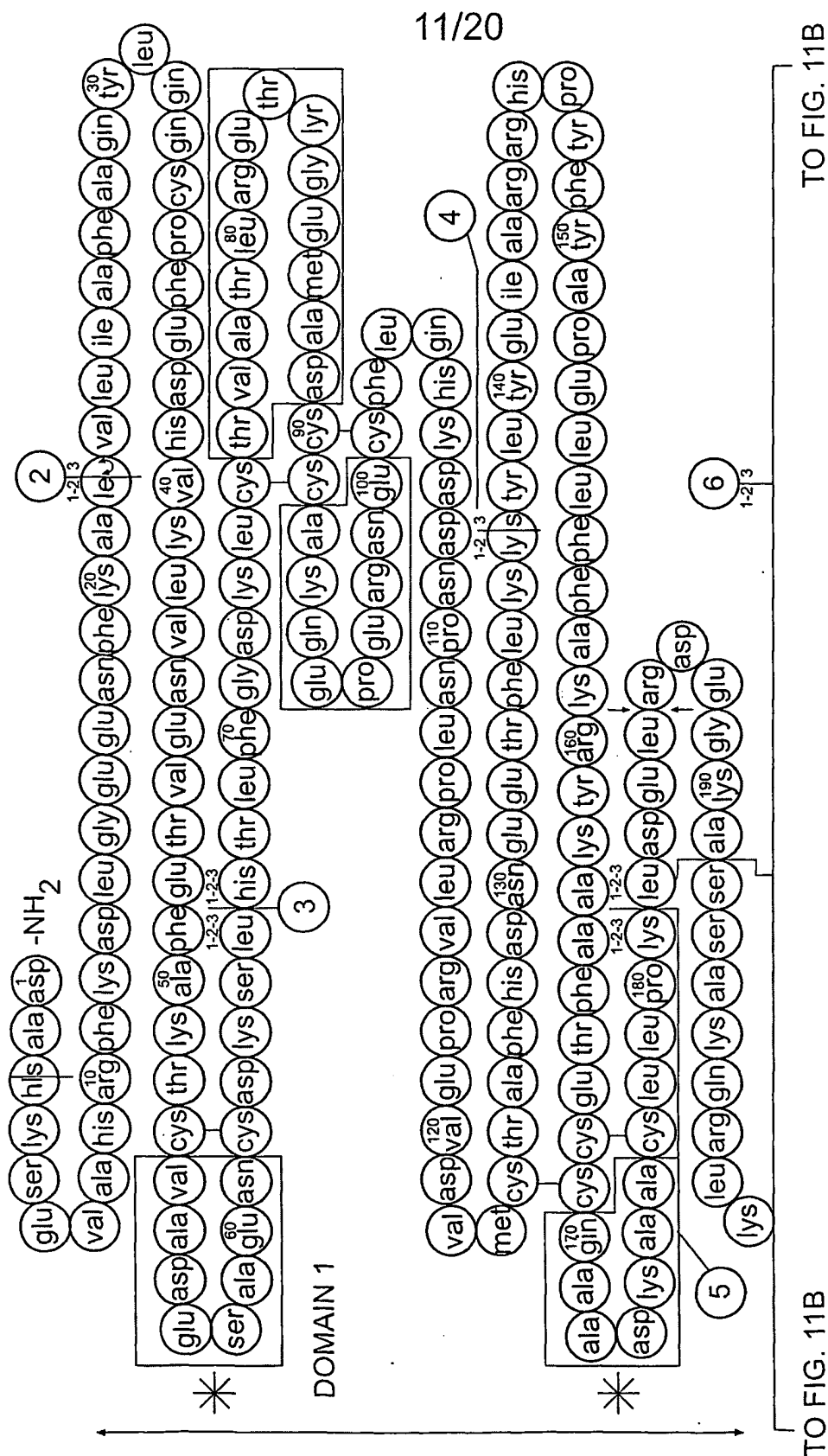
```

151  APELLFFAKR YKAAFTECCQ AADKAACLLP KLDEL RDEGK ASSAKQRLKC
      HHHHHHHHHH HHHHHHHHHH          HHHHH HHHHHHHHHHH HHHHHHHHHHH

```

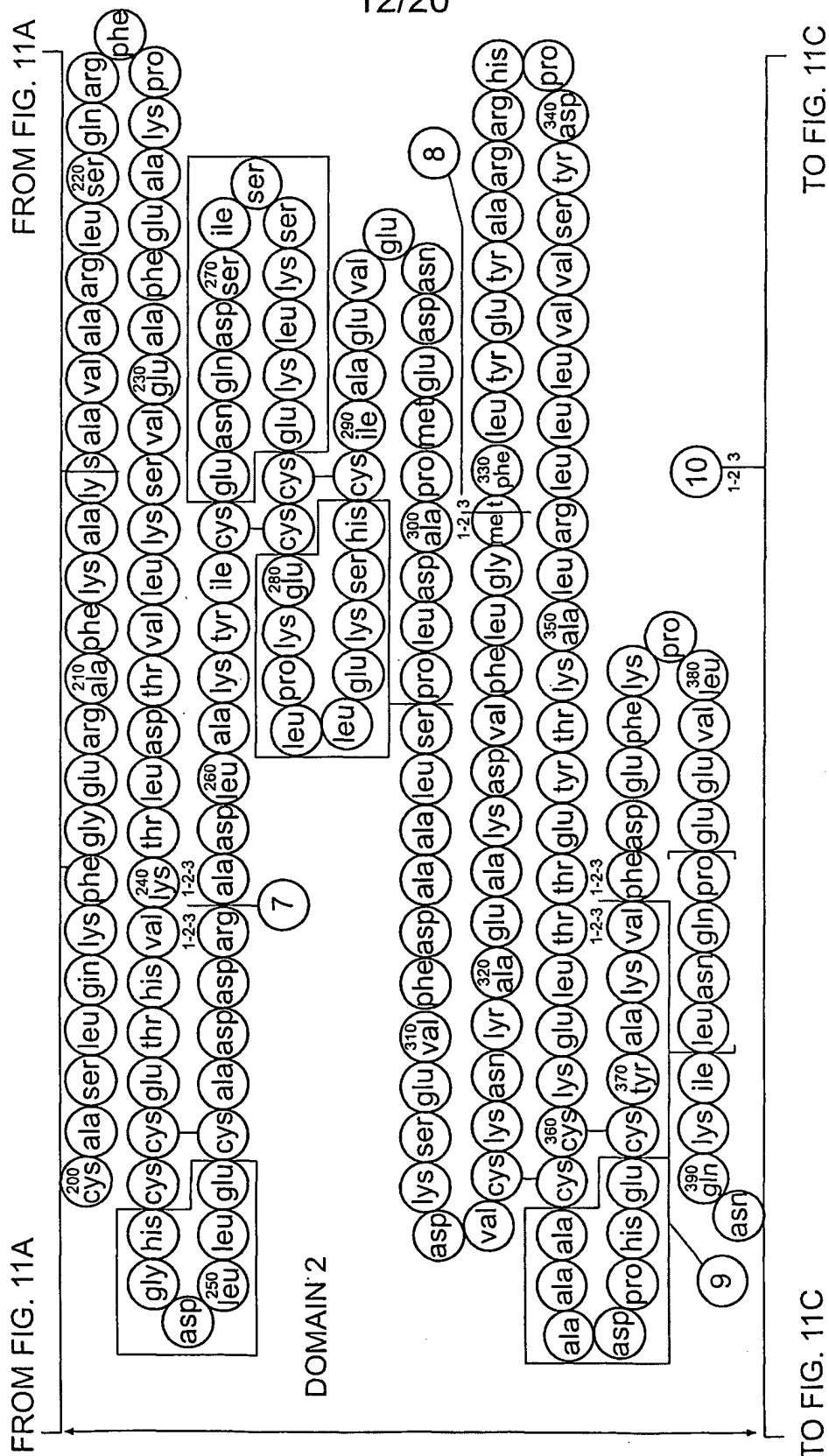
The insertion can be at any point on the loop and the length a length where n would typically be 6, 8, 12, 20 or 25.

**Figure 10**



**FIG. 11A**

12/20



TO FIG. 11C

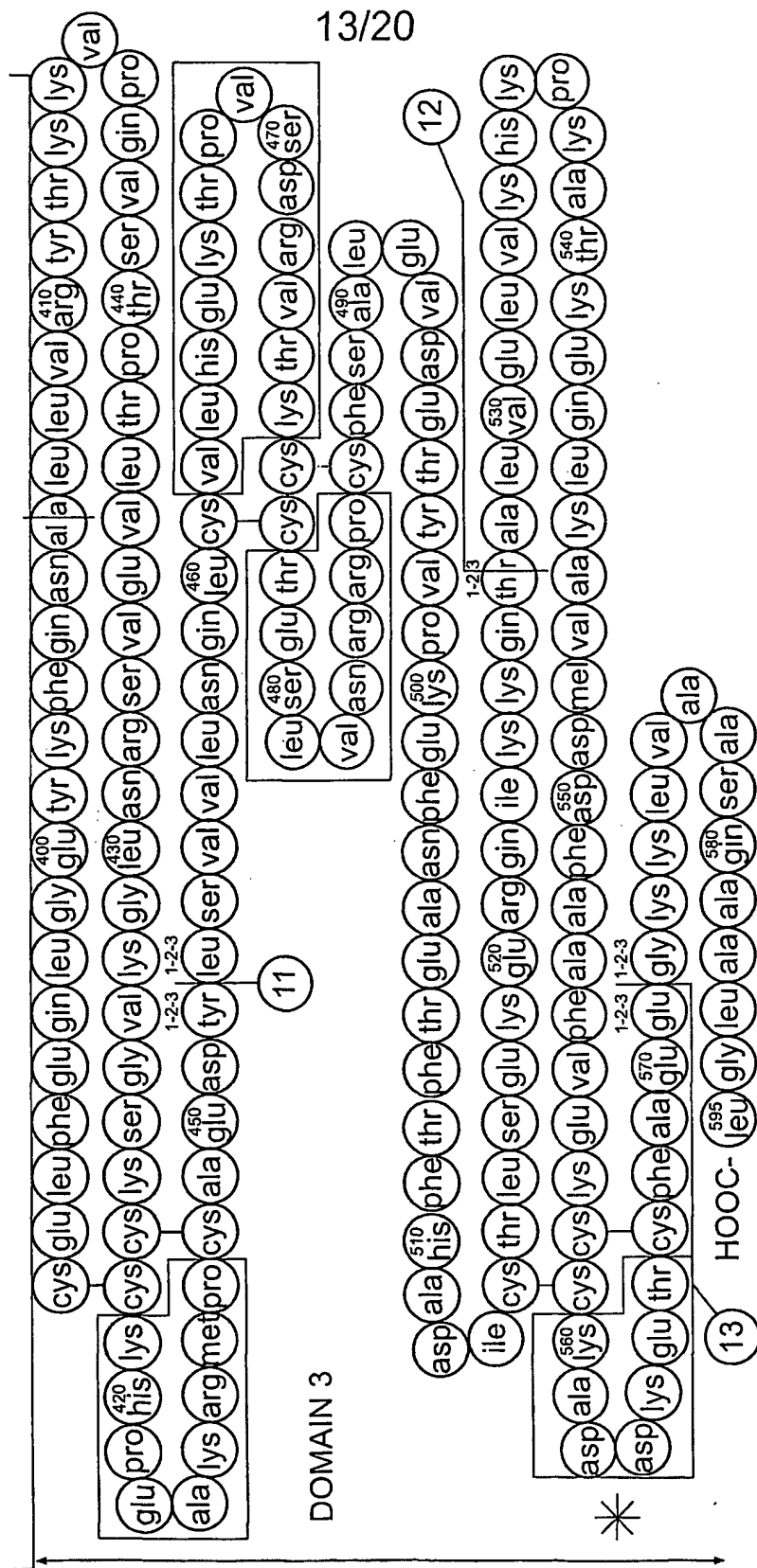
**FIG. 11B**

TO FIG. 11C

FROM FIG. 11B

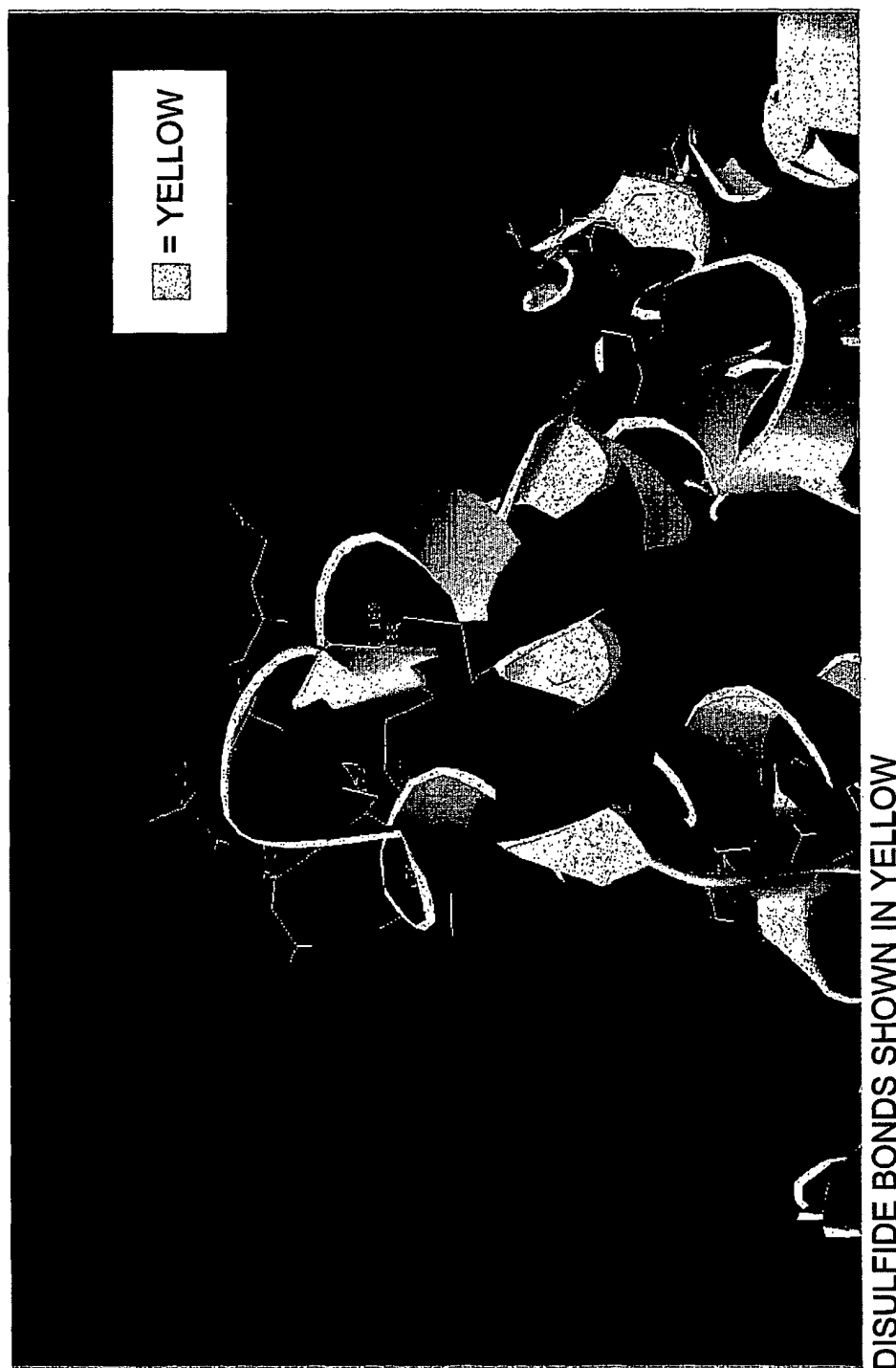
FROM FIG. 11B

13/20



**FIG. 11C**

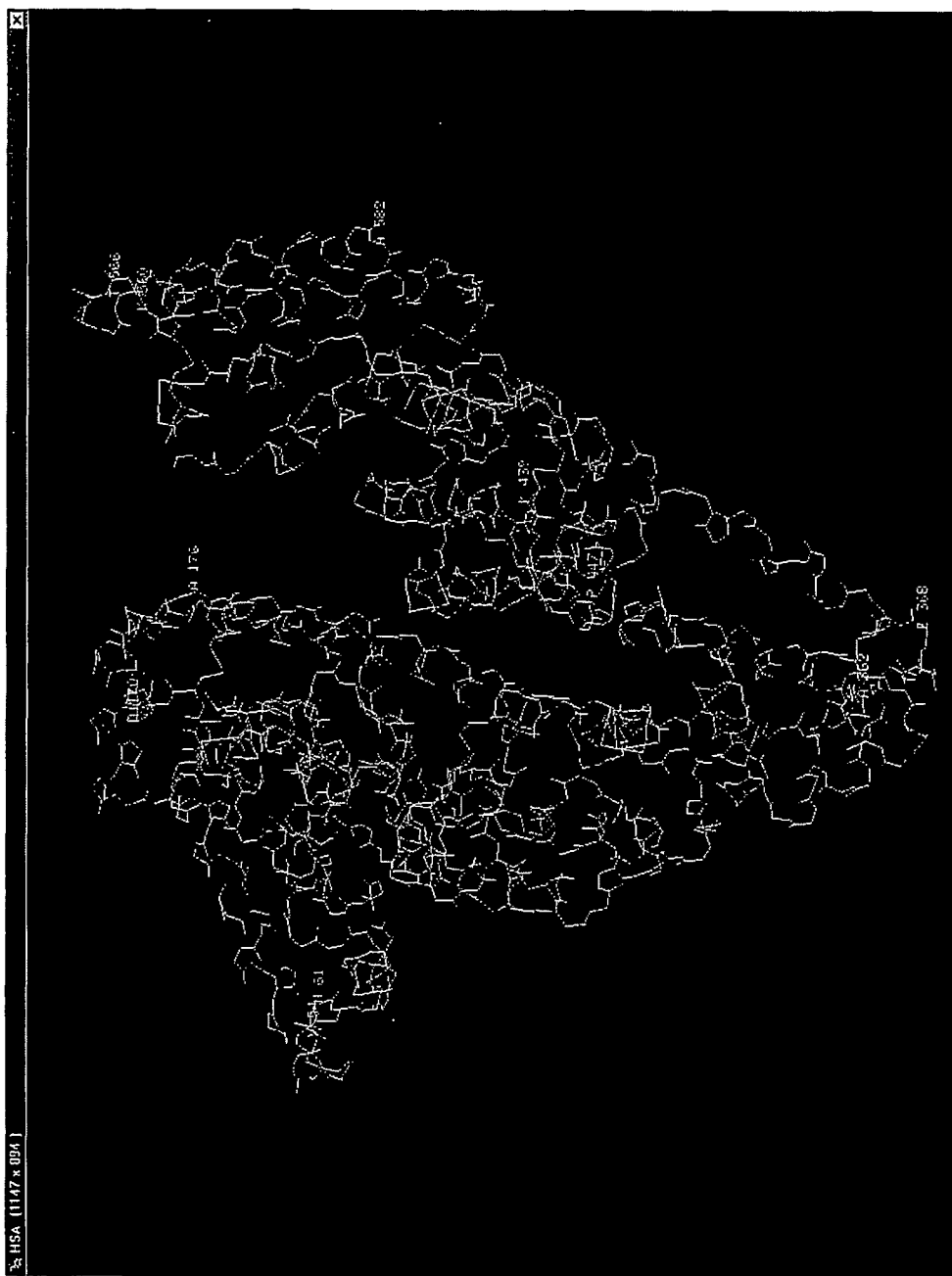
14/20



**FIG. 12:**  
LOOP IV GLU170-A176

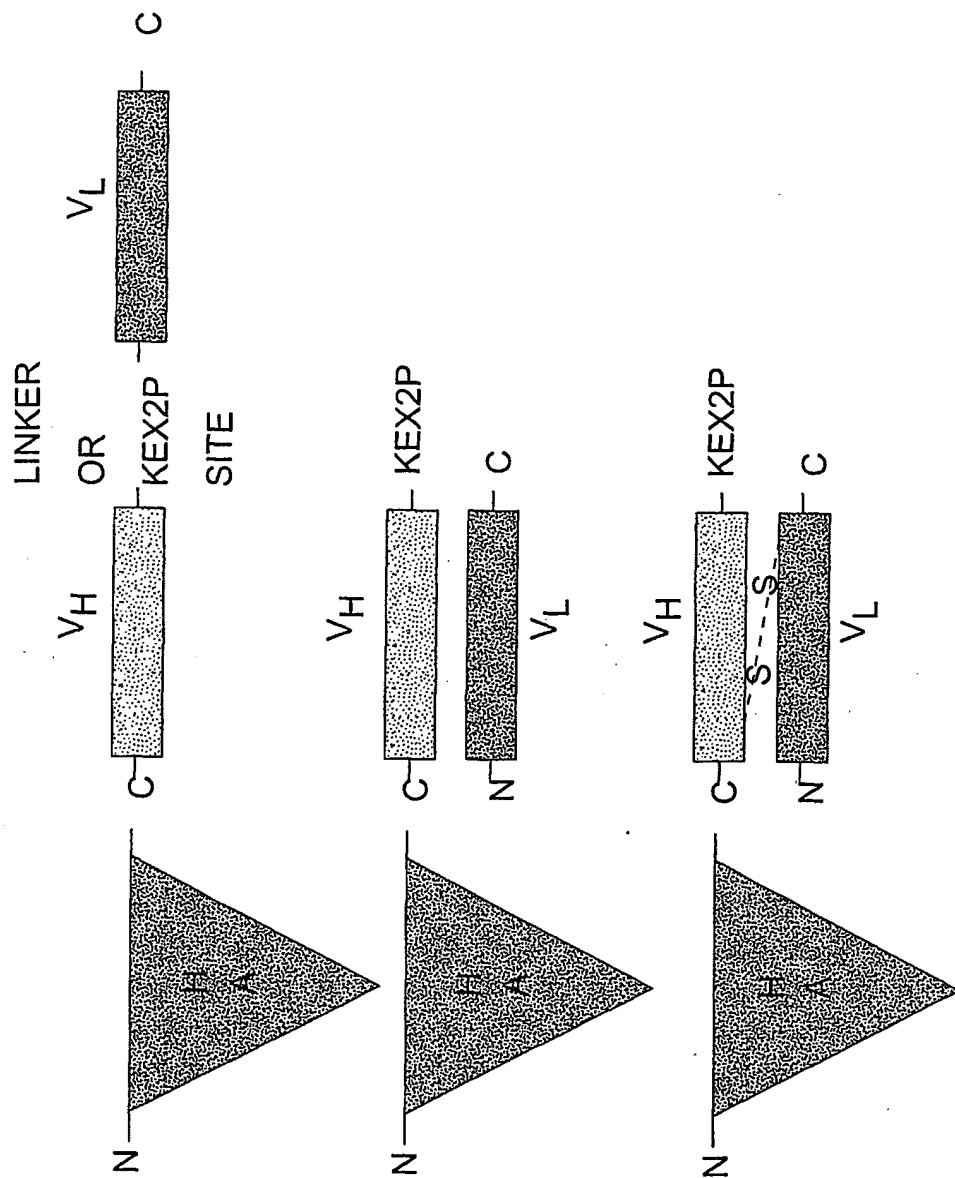


15/20



**FIG. 13**  
TERTIARY STRUCTURE OF HA

16/20



**FIG. 14**

17/20

```

1 GAT GCA CAC AAG AGT GAG GTT GCT CAT CGG TTT AAA GAT TTG GGA GAA AAT TTC AAA 60
1 D A H K S E V A H R F K D L G E E N F K 20

61 GCC TTG GTG TTG ATT GCC TTT GCT CAG TAT CTT CAG CAG TGT CCA TTT GAA GAT CAT GTA 120
21 A L V L I A F A Q Y L Q Q C P F E D H V 40

121 AAA TTA GTG AAT GAA GTA ACT GAA TTT GCA AAA ACA TGT GTT GCT GAT GAG TCA GCT GAA 180
41 K L V N E V T E F A K T C V A D E S A E 60

181 AAT TGT GAC AAA TCA CTT CAT ACC CTT TTT GGA GAC AAA TTA TGC ACA GTT GCA ACT CTT 240
61 N C D K S L H T L F G D K L C T V A T L 80

241 CGT GAA ACC TAT GGT GAA ATG GCT GAC TGC TGT GCA AAA CAA GAA CCT GAG AGA AAT GAA 300
81 R E T Y G E M A D C C A K Q E P E R N E 100

301 TGC TTC TTG CAA CAC AAA GAT GAC AAC CCA AAC CTC CCC CGA TTG GTG AGA CCA GAG GTT 360
101 C F L Q H K D D N P N L P R L V R P E V 120

361 GAT GTG ATG TGC ACT GCT TTT CAT GAC AAT GAA GAG ACA TTT TTG AAA AAA TAC TTA TAT 420
121 D V M C T A F H D N E E T F L K K Y L Y 140

421 GAA ATT GCC AGA AGA CAT CCT TAT TTT TAT GCC CCG GAA CTC CTT TTC TTT GCT AAA AGG 480
141 E I A R R H P Y F Y A P E L L F F A K R 160

```

Figure 15A

18/20

```

481 TAT AAA GCT GCT TTT ACA GAA TGT TGC CAA GCT GCT GAT AAA GCT GCC TGC CTG TTG CCA 540
161 Y K A A F T E C C Q A A D K A A C L L P 180

541 AAG CTC GAT GAA CTT CGG GAT GAA GGG AAG GCT TCG TCT GCC AAA CAG AGA CTC AAA TGT 600
181 K L D E L R D E G K A S S A K Q R L K C 200

601 GCC AGT CTC CAA AAA TTT GGA GAA AGA GCT TTC AAA GCA TGG GCA GTG GCT CGC CTG AGC 660
201 A S L Q K F G E R A F K A W A V A R L S 220

661 CAG AGA TTT CCC AAA GCT GAG TTT GCA GAA GTT TCC AAG TTA GTG ACA GAT CTT ACC AAA 720
221 Q R F P K A E F A E V S K L V T D L T K 240

721 GTC CAC ACG GAA TGC TGC CAT GGA GAT CTG CTT GAA TGT GCT GAT GAC AGG GCG GAC CTT 780
241 V H T E C C H G D L L E C A D D R A D L 260

781 GCC AAG TAT ATC TGT GAA AAT CAG GAT TCG ATC TCC AGT AAA CTG AAG GAA TGC TGT GAA 840
261 A K Y I C E N Q D S I S S K L K E C C E 280

841 AAA CCT CTG TTG GAA AAA TCC CAC TGC ATT GCC GAA GTG GAA AAT GAT GAG ATG CCT GCT 900
281 K P L L E K S H C I A E V E N D E M P A 300

901 GAC TTG CCT TCA TTA GCT GCT GAT TTT GTT GAA AGT AAG GAT GTT TGC AAA AAC TAT GCT 960
301 D L P S L A A D F V E S K D V C K N Y A 320

```

Figure 15B

19/20

```

961 GAG GCA AAG GAT GTC TTC CTG GGC ATG TTT TTG TAT GAA TAT GCA AGA AGG CAT CCT GAT 1020
321 E A K D V F L G M F L Y E Y A R R H P D 340

1021 TAC TCT GTC GTG CTG CTG CTG AGA CTT GCC AAG ACA TAT GAA ACC ACT CTA GAG AAG TGC 1080
341 Y S V V L L L L R L A K T Y E T T L E K C 360

1081 TGT GCC GCT GCA GAT CCT CAT GAA TGC TAT GCC AAA GTG TTC GAT GAA TTT AAA CCT CTT 1140
361 C A A A D P H E C Y A K V F D E F K P L 380

1141 GTG GAA GAG CCT CAG AAT TTA ATC AAA CAA AAC TGT GAG CTT TTT GAG CAG CTT GGA GAG 1200
381 V E E P Q N L I K Q N C E L F E Q L G E 400

1201 TAC AAA TTC CAG AAT GCG CTA TTA GTT CGT TAC ACC AAG AAA GTA CCC CAA GTG TCA ACT 1260
401 Y K F Q N A L L V R Y T K K V P Q V S T 420

1261 CCA ACT CTT GTA GAG GTC TCA AGA AAC CTA GGA AAA GTG GGC AGC AAA TGT TGT AAA CAT 1320
421 P T L V E V S R N L G K V G S K C C K H 440

1321 CCT GAA GCA AAA AGA ATG CCC TGT GCA GAA GAC TAT CTA TCC GTG GTC CTG AAC CAG TTA 1380
441 P E A K R M P C A E D Y L S V V L N Q L 460

1381 TGT GTG TTG CAT GAG AAA ACG CCA GTA AGT GAC AGA GTC ACA AAA TGC TGC ACA GAG TCC 1440
461 C V L H E K T P V S D R V T K C C T E S 480

```

Figure 15C

20/20

```

1441 TTG GTG AAC AGG CGA CCA TGC TTT TCA GCT CTG GAA GTC GAT GAA ACA TAC GTT CCC AAA 1500
481 L V N R R P C F S A L E V D E T Y V P K 500

1501 GAG TTT AAT GCT GAA ACA TTC ACC TTC CAT GCA GAT ATA TGC ACA CTT TCT GAG AAG GAG 1560
501 E F N A E T P T F H A D I C T L S E K E 520

1561 AGA CAA ATC AAG AAA CAA ACT GCA CTT GTT GAG CTT GTG AAA CAC AAG CCC AAG GCA ACA 1620
521 R Q I K K Q T A L V E L V K H K P K A T 540

1621 AAA GAG CAA CTG AAA GCT GTT ATG GAT TTC GCA GCT TTT GTA GAG AAG TGC TGC AAG 1680
541 K E Q L K A V M D D F A A F V E K C C K 560

1681 GCT GAC GAT AAG GAG ACC TGC TTT GCC GAG GGT AAA AAA CTT GTT GCT GCA AGT CAA 1740
561 A D D K E T C F A E E G K K L V A A S Q 580

1741 GCT GCC TTA GGC TTA TAA CAT CTA CAT TTA AAA GCA TCT CAG 1782
581 A A L G L * 585

```

Figure 15D

## SEQUENCE LISTING

<110> Human Genome Sciences, Inc.

<120> Albumin Fusion Proteins

<130> PF546PCT

<140> Unassigned

<141> 2001-04-12

<150> 60/229, 358

<151> 2000-04-12

<150> 60/256, 931

<151> 2000-12-21

<150> 60/199, 384

<151> 2000-04-25

<160> 2267

<170> PatentIn Ver. 2.1

<210> 1

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221> primer\_bind

<223> primer useful to clone human growth hormone cDNA

<400> 1

cccaagaatt cccttatcca ggc

23

<210> 2

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> primer\_bind

<223> primer useful to clone human growth hormone cDNA

<400> 2

gggaagctta gaagccacag gatccctcca cag

33

<210> 3

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_structure

<223> synthetic oligonucleotide used to join DNA fragments  
with non-cohesive ends.

<400> 3  
gataaagatt cccaac

16

<210> 4  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA fragments  
with non-cohesive ends.

<400> 4  
aattgttggg aatcttt

17

<210> 5  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA fragments  
with non-cohesive ends.

<400> 5  
ttaggcttat tccaac

17

<210> 6  
<211> 18  
<212> DNA  
<213> Artificial Sequence.

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA fragments  
with non-cohesive ends.

<400> 6  
aattgttggg aataagcc

18

<210> 7  
<211> 24  
<212> PRT  
<213> Artificial Sequence

<220>  
<221> SITE  
<222> 1)..(19)  
<223> invertase leader sequence

<220>  
<221> SITE  
<222> 20)..(24)



<223> first 5 amino acids of mature human serum albumin

<400> 7

Met Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys  
1 5 10 15

Ile Ser Ala Asp Ala His Lys Ser  
20

<210> 8

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_structure

<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 8

gagatgcaca cctgagtgg g

21

<210> 9

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_structure

<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 9

gacacctgtgg cttcgatgca cacaaga

27

<210> 10

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_structure

<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 10

ctcttggtg gatcgaagcc acag

24

<210> 11

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> misc\_structure

<223> synthetic oligonucleotide used to join DNA

fragments with non-cohesive ends.

<400> 11  
tgtggaagag cctcagaatt tattccaac

30

<210> 12  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 12  
aattgttggg aataaattct gaggctcttc c

31

<210> 13  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 13  
ttaggcttag gtggcgggtg atccggcggg ggtggatctt tccaac

47

<210> 14  
<211> 48  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 14  
aattgttggg aaagatccac caccgccgga tccaccgcca cctaagcc

48

<210> 15  
<211> 62  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> misc\_structure  
<223> synthetic oligonucleotide used to join DNA  
fragments with non-cohesive ends.

<400> 15  
ttaggcttag gcggtggtgg atctggtggc ggcggatctg gtggcgggtg atccttccca 60

ac

62

<210> 16  
 <211> 63  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> misc\_structure  
 <223> synthetic oligonucleotide used to join DNA  
 fragments with non-cohesive ends.

<400> 16  
 aattgttggg aaggatccac cgccaccaga tccgcccga ccagatccac caccgcctaa 60  
 gcc 63

<210> 17  
 <211> 1782  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)..(1755)

<400> 17  
 gat gca cac aag agt gag gtt gct cat cgg ttt aaa gat ttg gga gaa 48  
 Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu  
 1 5 10 15  
 gaa aat ttc aaa gcc ttg gtg ttg att gcc ttt gct cag tat ctt cag 96  
 Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln  
 20 25 30  
 cag tgt cca ttt gaa gat cat gta aaa tta gtg aat gaa gta act gaa 144  
 Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu  
 35 40 45  
 ttt gca aaa aca tgt gtt gct gat gag tca gct gaa aat tgt gac aaa 192  
 Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys  
 50 55 60  
 tca ctt cat acc ctt ttt gga gac aaa tta tgc aca gtt gca act ctt 240  
 Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu  
 65 70 75 80  
 cgt gaa acc tat ggt gaa atg gct gac tgc tgt gca aaa caa gaa cct 288  
 Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro  
 85 90 95  
 gag aga aat gaa tgc ttc ttg caa cac aaa gat gac aac cca aac ctc 336  
 Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu  
 100 105 110  
 ccc cga ttg gtg aga cca gag gtt gat gtg atg tgc act gct ttt cat 384  
 Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His  
 115 120 125

gac aat gaa gag aca ttt ttg aaa aaa tac tta tat gaa att gcc aga	432
Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg	
130 135 140	
aga cat cct tac ttt tat gcc ccg gaa ctc ctt ttc ttt gct aaa agg	480
Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg	
145 150 155 160	
tat aaa gct gct ttt aca gaa tgt tgc caa gct gct gat aaa gct gcc	528
Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala	
165 170 175	
tgc ctg ttg cca aag ctc gat gaa ctt cgg gat gaa ggg aag gct tcg	576
Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser	
180 185 190	
tct gcc aaa cag aga ctc aaa tgt gcc agt ctc caa aaa ttt gga gaa	624
Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu	
195 200 205	
aga gct ttc aaa gca tgg gca gtg gct cgc ctg agc cag aga ttt ccc	672
Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro	
210 215 220	
aaa gct gag ttt gca gaa gtt tcc aag tta gtg aca gat ctt acc aaa	720
Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys	
225 230 235 240	
gtc cac acg gaa tgc tgc cat gga gat ctg ctt gaa tgt gct gat gac	768
Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp	
245 250 255	
agg gcg gac ctt gcc aag tat atc tgt gaa aat cag gat tcg atc tcc	816
Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser	
260 265 270	
agt aaa ctg aag gaa tgc tgt gaa aaa cct ctg ttg gaa aaa tcc cac	864
Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His	
275 280 285	
tgc att gcc gaa gtg gaa aat gat gag atg cct gct gac ttg cct tca	912
Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser	
290 295 300	
tta gct gct gat ttt gtt gaa agt aag gat gtt tgc aaa aac tat gct	960
Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala	
305 310 315 320	
gag gca aag gat gtc ttc ctg ggc atg ttt ttg tat gaa tat gca aga	1008
Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg	
325 330 335	
agg cat cct gat tac tct gtc gtg ctg ctg ctg aga ctt gcc aag aca	1056
Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr	
340 345 350	
tat gaa acc act cta gag aag tgc tgt gcc gct gca gat cct cat gaa	1104
Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu	
355 360 365	

tgc tat gcc aaa gtg ttc gat gaa ttt aaa cct ctt gtg gaa gag cct	1152
Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro	
370 375 380	
cag aat tta atc aaa caa aac tgt gag ctt ttt gag cag ctt gga gag	1200
Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu	
385 390 395 400	
tac aaa ttc cag aat gcg cta tta gtt cgt tac acc aag aaa gta ccc	1248
Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro	
405 410 415	
caa gtg tca act cca act ctt gta gag gtc tca aga aac cta gga aaa	1296
Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys	
420 425 430	
gtg ggc agc aaa tgt tgt aaa cat cct gaa gca aaa aga atg ccc tgt	1344
Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys	
435 440 445	
gca gaa gac tat cta tcc gtg gtc ctg aac cag tta tgt gtg ttg cat	1392
Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His	
450 455 460	
gag aaa acg cca gta agt gac aga gtc aca aaa tgc tgc aca gag tcc	1440
Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser	
465 470 475 480	
ttg gtg aac agg cga cca tgc ttt tca gct ctg gaa gtc gat gaa aca	1488
Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr	
485 490 495	
tac gtt ccc aaa gag ttt aat gct gaa aca ttc acc ttc cat gca gat	1536
Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp	
500 505 510	
ata tgc aca ctt tct gag aag gag aga caa atc aag aaa caa act gca	1584
Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala	
515 520 525	
ctt gtt gag ctt gtg aaa cac aag ccc aag gca aca aaa gag caa ctg	1632
Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu	
530 535 540	
aaa gct gtt atg gat gat ttc gca gct ttt gta gag aag tgc tgc aag	1680
Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys	
545 550 555 560	
gct gac gat aag gag acc tgc ttt gcc gag gag ggt aaa aaa ctt gtt	1728
Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val	
565 570 575	
gct gca agt caa gct gcc tta ggc tta taacatctac atttaaaagc atctcag	1782
Ala Ala Ser Gln Ala Ala Leu Gly Leu	
580 585	

&lt;210&gt; 18

&lt;211&gt; 585

&lt;212&gt; PRT

&lt;213&gt; Homo Sapiens

&lt;400&gt; 18

```

Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu
 1              5              10              15

Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln
      20              25              30

Gln Cys Pro Phe Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu
      35              40              45

Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys
      50              55              60

Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu
      65              70              75              80

Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro
      85              90              95

Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu
      100              105              110

Pro Arg Leu Val Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His
      115              120              125

Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg
      130              135              140

Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg
      145              150              155              160

Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala
      165              170              175

Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser
      180              185              190

Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu
      195              200              205

Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro
      210              215              220

Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys
      225              230              235              240

Val His Thr Glu Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp
      245              250              255

Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser
      260              265              270

Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His
      275              280              285

Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser
      290              295              300

```

Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala  
 305 310 315 320  
 Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg  
 325 330 335  
 Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr  
 340 345 350  
 Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu  
 355 360 365  
 Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro  
 370 375 380  
 Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu  
 385 390 395 400  
 Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro  
 405 410 415  
 Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys  
 420 425 430  
 Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys  
 435 440 445  
 Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His  
 450 455 460  
 Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser  
 465 470 475 480  
 Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr  
 485 490 495  
 Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp  
 500 505 510  
 Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala  
 515 520 525  
 Leu Val Glu Leu Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu  
 530 535 540  
 Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys  
 545 550 555 560  
 Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val  
 565 570 575  
 Ala Ala Ser Gln Ala Ala Leu Gly Leu  
 580 585

&lt;210&gt; 19

&lt;211&gt; 57

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

<220>  
<221> primer\_bind  
<223> primer used to generate XhoI and ClaI  
site in pPPC0006

<400> 19  
gcctcgagaa aagagatgca cacaagagtg aggttgctca tcgatttaaa gatttgg 57

<210> 20  
<211> 58  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> primer used in generation XhoI and ClaI  
site in pPPC0006

<400> 20  
aatcgatgag caacctcact cttgtgtgca tctcttttct cgaggctcct ggaataag 58

<210> 21  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> primer used in generation XhoI and ClaI  
site in pPPC0006

<400> 21  
tacaaactta agagtccaat tagc 24

<210> 22  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> primer used in generation XhoI and ClaI  
site in pPPC0006

<400> 22  
cacttctcta gagtggtttc atatgtctt. 29

<210> 23  
<211> 60  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> Misc\_Structure  
<223> Synthetic oligonucleotide used to alter restriction



sites in pPPC0007

<400> 23

aagctgcctt aggcttataa taaggcgcgc cggccggccg. tttaaactaa gcttaattct 60

<210> 24

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<221> Misc\_Structure

<223> Synthetic oligonucleotide used to alter restriction  
sites in pPPC0007

<400> 24

agaattaagc ttagtttaaa cggccggccg gcgcgctta ttataagcct aaggcagctt 60

<210> 25

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> primer\_bind

<223> forward primer useful for generation of albumin  
fusion protein in which the albumin moiety is N-terminal  
of the Therapeutic Protein

<220>

<221> Misc\_Structure

<222> (18)

<223> n equals a, t, g, or c

<220>

<221> Misc\_Structure

<222> (19)

<223> n equals a, t, g, or c

<220>

<221> Misc\_Structure

<222> (20)

<223> n equals a, t, g, or c

<220>

<221> Misc\_Structure

<222> (21)

<223> n equals a, t, g, or c

<220>

<221> Misc\_Structure

<222> (22)

<223> n equals a, t, g, or c

<220>

<221> Misc\_Structure

<222> (23)

<223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (24)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (25)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (26)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (27)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (28)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (29)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (30)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (31)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (32)  
 <223> n equals a, t, g, or c

<400> 25  
 aagctgcctt aggcttannn nnnnnnnnnn nn

32

<210> 26  
 <211> 51  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> primer\_bind  
 <223> reverse primer useful for generation of albumin  
 fusion protein in which the albumin moiety is N-terminal  
 of the Therapeutic Protein

<220>  
<221> Misc\_Structure  
<222> (37)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (38)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (39)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (40)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (41)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (42)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (43)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (44)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (45)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (46)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (47)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (48)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (49)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (50)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (51)  
<223> n equals a, t, g, or c

<400> 26  
gcgcgcggttt aaacggccgg cggcgcgcc ttattannnn nnnnnnnnnn n

51

<210> 27  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> forward primer useful for generation of albumin fusion protein in which the albumin moiety is c-terminal of the Therapeutic Protein

<220>  
<221> Misc\_Structure  
<222> (19)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (20)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (21)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (22)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (23)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (24)  
<223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (25)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (26)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (27)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (28)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (29)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (30)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (31)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (32)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (33)  
 <223> n equals a, t, g, or c

<400> 27  
 aggagcgtcg acaaaagann nnnnnnnnnn nnn

33

<210> 28  
 <211> 52  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> primer\_bind  
 <223> reverse primer useful for generation of albumin  
 fusion protein in which the albumin moiety is c-terminal of  
 the Therapeutic Protein

<220>  
<221> Misc\_Structure  
<222> (38)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (39)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (40)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (41)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (42)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (43)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (44)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (45)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (46)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (47)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (48)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (49)  
<223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (50)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (51)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (52)  
 <223> n equals a, t, g, or c

<400> 28  
 ctttaaatcg atgagcaacc tcactcttgt gtgcacnnnn nnnnnnnnnn nn 52

<210> 29  
 <211> 24  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <221> signal  
 <223> signal peptide of natural human serum albumin protein

<400> 29  
 Met Lys Trp Val Ser Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala  
           1                  5                  10                  15  
 Tyr Ser Arg Ser Leu Asp Lys Arg  
                           20

<210> 30  
 <211> 114  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <221> primer\_bind  
 <223> forward primer useful for generation of PC4:HSA  
 albumin fusion VECTOR

<220>  
 <221> misc\_feature  
 <222> (5)..(10)  
 <223> BamHI restriction site

<220>  
 <221> misc\_feature  
 <222> (11)..(16)  
 <223> Hind III restriction site

<220>  
 <221> misc\_feature  
 <222> (17)..(27)  
 <223> Kozak sequence

<220>  
<221> misc\_feature  
<222> (25)..(97)  
<223> cds natural signal sequence of human serum albumin

<220>  
<221> misc\_feature  
<222> (75)..(81)  
<223> XhoI restriction site

<220>  
<221> misc\_feature  
<222> (98)..(114)  
<223> cds first six amino acids of human serum albumin

<400> 30  
tcagggatcc aagcttccgc caccatgaag tgggtaacct ttatttcctc tctttttctc 60  
tttagctcgg cttactcgag ggggtgtgtt cgctcgagatg caacacaagag tgag 114

<210> 31  
<211> 43  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> reverse primer useful for generation of  
PC4:HSA albumin fusion VECTOR

<220>  
<221> misc\_feature  
<222> (6)..(11)  
<223> Asp718 restriction site

<220>  
<221> misc\_feature  
<222> (12)..(17)  
<223> EcoRI restriction site

<220>  
<221> misc\_feature  
<222> (15)..(17)  
<223> reverse complement of stop codon

<220>  
<221> misc\_feature  
<222> (18)..(25)  
<223> AscI restriction site

<220>  
<221> misc\_feature  
<222> (18)..(43)  
<223> reverse complement of DNA sequence encoding last 9 amino acids

<400> 31  
gcagcgggtac cgaattcggc ggcgccttata agcctaaggc agc 43



<210> 32  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> forward primer useful for inserting Therapeutic protein into pC4:HSA vector

<220>  
<221> Misc\_Structure  
<222> (29)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (30)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (31)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (32)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (33)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (34)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (35)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (36)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (37)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (38)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (39)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (40)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (41)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (42)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (43)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (44)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (45)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (46)  
<223> n equals a, t, g, or c

<400> 32  
ccgccgctcg aggggtgtgt ttcgtcgann nnnnnnnnnn nnnnnn

46

<210> 33  
<211> 55  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> primer\_bind  
<223> reverse primer useful for inserting Therapeutic  
protein into pC4:HSA vector

<220>  
<221> Misc\_Structure  
<222> (38)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (39)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (40)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (41)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (42)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (43)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (44)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (45)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (46)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (47)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (48)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (49)  
<223> n equals a, t, g, or c

<220>  
<221> Misc\_Structure  
<222> (50)  
<223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (51)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (52)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (53)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (54)  
 <223> n equals a, t, g, or c

<220>  
 <221> Misc\_Structure  
 <222> (55)  
 <223> n equals a, t, g, or c

<400> 33  
 agtcccatcg atgagcaacc tcactcttgt gtgcatchnnn nnnnnnnnnn nnnnn 55

<210> 34  
 <211> 17  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <221> signal  
 <223> Stanniocalcin signal peptide

<400> 34  
 Met Leu Gln Asn Ser Ala Val Leu Leu Leu Val Ile Ser Ala Ser  
           1                          5                          10                          15

Ala

<210> 35  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <221> signal  
 <223> Synthetic signal peptide

<400> 35  
 Met Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Ala Leu  
           1                          5                          10                          15

Trp Ala Pro Ala Arg Gly  
                           20

<210> 36  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 36  
caggtgcagc tgggtgcagtc tgg

23

<210> 37  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 37  
caggtcaact taaggagtc tgg

23

<210> 38  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 38  
gaggtgcagc tgggtggagtc tgg

23

<210> 39  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 39  
caggtgcagc tgcaggagtc ggg

23

<210> 40  
<211> 23  
<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 40

gaggtgcagc tgttcgagtc tgc

23

<210> 41

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate VH forward primer useful for  
amplifying human VH domains

<400> 41

caggtacagc tgcagcagtc agg

23

<210> 42

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate JH reverse primer useful for  
amplifying human VH domains

<400> 42

tgaggagacg gtgaccaggg tgcc

24

<210> 43

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate JH reverse primer useful for  
amplifying human VH domains

<400> 43

tgaagagacg gtgaccattg tccc

24

<210> 44

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate JH reverse primer useful for  
amplifying human VH domains

<400> 44  
tgaggagacg gtgaccaggg ttcc 24

<210> 45  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate JH reverse primer useful for  
amplifying human VH domains

<400> 45  
tgaggagacg gtgaccgtgg tccc 24

<210> 46  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 46  
gacatccaga tgaccagtc tcc 23

<210> 47  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 47  
gatgttgatga tgactcagtc tcc 23

<210> 48  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 48  
gatattgtga tgactcagtc tcc 23

<210> 49  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 49  
gaaattgtgt tgacgcagtc tcc 23

<210> 50  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 50  
gacatcgtga tgacccagtc tcc 23

<210> 51  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 51  
gaaacgacac tcacgcagtc tcc 23

<210> 52  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vkappa forward primer useful for  
amplifying human VL domains

<400> 52  
gaaattgtgc tgactcagtc tcc 23

<210> 53  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlamba forward primer useful for  
amplifying human VL domains

<400> 53  
cagtctgtgt tgacgcagcc gcc 23



<210> 54  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for  
amplifying human VL domains

<400> 54  
cagtctgccc tgactcagcc tgc

23

<210> 55  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for  
amplifying human VL domains

<400> 55  
tccttatgtgc tgactcagcc acc

23

<210> 56  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for  
amplifying human VL domains

<400> 56  
tcttctgagc tgactcagga ccc

23

<210> 57  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for  
amplifying human VL domains

<400> 57  
cacggttatac tgactcaacc gcc

23

<210> 58  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for

amplifying human VL domains

<400> 58  
caggctgtgc tcactcagcc gtc 23

<210> 59  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Vlambda forward primer useful for  
amplifying human VL domains

<400> 59  
aattttatgc tgactcagcc cca 23

<210> 60  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Jkappa reverse primer useful for  
amplifying human VL domains

<400> 60  
acgtttgatt tccaccttgg tccc 24

<210> 61  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Jkappa reverse primer useful for  
amplifying human VL domains

<400> 61  
acgtttgatc tccagcttgg tccc 24

<210> 62  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<221>primer\_bind  
<223>Degenerate Jkappa reverse primer useful for  
amplifying human VL domains

<400> 62  
acgtttgata tccactttgg tccc 24

<210> 63  
<211> 24  
<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jkappa reverse primer useful for  
amplifying human VL domains

<400> 63

acgtttgatc tccaccttg tccc

24

<210> 64

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jkappa reverse primer useful for  
amplifying human VL domains

<400> 64

acgtttaatc tccagtcgtg tccc

24

<210> 65

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlamba reverse primer useful for  
amplifying human VL domains

<400> 65

cagtctgtgt tgacgcagcc gcc

23

<210> 66

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlamba reverse primer useful for  
amplifying human VL domains

<400> 66

cagtctgccc tgactcagcc tgc

23

<210> 67

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlamba reverse primer useful for  
amplifying human VL domains

<400> 67

tcctatgtgc tgactcagcc acc

23

<210> 68

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlambda reverse primer useful for  
amplifying human VL domains

<400> 68

tcttctgagc tgactcagga ccc

23

<210> 69

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlambda reverse primer useful for  
amplifying human VL domains

<400> 69

caggttatac tgactcaacc gcc

23

<210> 70

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlambda reverse primer useful for  
amplifying human VL domains

<400> 70

caggctgtgc tcactcagcc gtc

23

<210> 71

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<221>primer\_bind

<223>Degenerate Jlambda reverse primer useful for  
amplifying human VL domains

<400> 71

aattttatgc tgactcagcc cca

23

<210> 72

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221>turn

<223>Linker peptide that may be used to join VH  
and VL domains in an scFv.

<400> 72

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser  
1 5 10 15

<210> 73

<211> 101

<212> PRT

<213> Homo sapiens

<400> 73

Pro Ala Leu Phe Ile Cys Val Ile Ile Phe Val Asn Ile Val Phe Ser  
1 5 10 15

Val Val Ala Thr Ser Ser Pro Pro Ala Ser Gly Ser Val Cys Leu Pro  
20 25 30

Gly Leu Leu Ala Pro His Trp Ala Ala Pro Gly Ser Leu Pro Leu Ile  
35 40 45

Pro Gly Leu Ala Val Arg Pro Ser Gln Gln Gly Pro Val Thr Gln Gln  
50 55 60

Pro Ala Gln Ser Ile Cys Phe Trp Gly Met Gly Trp Gly Leu Leu His  
65 70 75 80

Arg Arg Phe Glu Pro Ser Thr Leu Gly Lys Gly Thr Leu His Asp Thr  
85 90 95

Pro Leu Pro Pro Ser  
100

<210> 74

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 74

Arg Pro Ser Leu Pro Lys Cys Ala Ala Leu Val His Val Pro Asn Gly  
1 5 10 15

Pro Ser Pro His Ala Pro Pro Xaa Ser Gly Val Gly Ala Pro Ser Glu  
20 25 30

Val Ser Glu Ser Leu Lys Cys Ser Phe Val Arg Pro Leu Cys Ser Asp  
35 40 45

Ser Pro Gly Gln Ala Thr Ser Asn Pro Leu

50

55

<210> 75  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 75  
 Asp Leu Asp Leu Met Glu Ser Gly Val Ser Thr His Asn Met Ser Ser  
   1                  5                  10                  15  
 Trp Thr Leu Gly Ile His Cys Glu Gln Ala Gly Trp Gly Leu Pro Ala  
                   20                  25                  30  
 Gln Ile Gly Ala Ile Leu Phe Cys Ile Leu Phe Gln Gly Val Leu Asn  
           35                  40                  45  
 Thr Leu Lys Gln Val Glu Ala Pro Ala Pro Asp Trp Glu Leu Leu Glu  
   50                  55                  60  
 Arg Pro Pro Cys Val Cys Val Val Leu Ser Trp Ser His Ile Glu Ser  
   65                  70                  75                  80  
 Gly Trp Gly Ser Ser Thr Arg Gln Ser Pro Ser Asn Ser Gln Val Leu  
                   85                  90                  95  
 Ala Pro Ser Gly Lys Ala Asp Thr Leu Ser Trp Arg Arg Pro Arg Lys  
           100                  105                  110  
 Ser Gly Leu Arg Val Ala Ala  
       115

<210> 76  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 76  
 Val Thr Cys Gln Xaa Val Leu Pro Ser Pro Val Tyr Leu Cys Asn Tyr  
   1                  5                  10                  15  
 Phe Cys Lys His Cys Ile Leu Cys Gly Arg His Leu Leu Ala Pro Ser  
           20                  25                  30  
 Leu Gly Phe Ser Leu Ser Ser Arg Pro Ala Cys Thr Ser Leu Gly Cys  
           35                  40                  45  
 Ser Gly Val Ser Ala Pro His Ser Arg Pro Gly Cys Gln Ala Gln Pro  
   50                  55                  60  
 Ala Gly Ala Arg Asp Pro Ala Ala Cys Pro Lys His Leu Phe Leu Gly

```
<210> 78
<211> 194
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids.
```

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 78

Gln Trp Xaa Gly Gln Gly Ser Leu Cys Pro Trp Tyr Cys Cys Pro Gly  
 1 5 10 15

Xaa Val Ser Ala Val Thr Leu Leu Pro Ser Trp Trp Leu Leu Arg Pro  
 20 25 30

Xaa Phe Val Leu Leu Phe Leu Pro Lys Cys Leu Ser Ser Pro Ser Cys  
 35 40 45

Ile Lys Tyr Pro Cys Cys Ala Thr Asn Tyr Leu Glu Leu Gly Asp Phe  
 50 55 60

Thr Thr Thr Ala Cys Gln Arg Pro Ala Val Asp Glu Gly Leu Gly Gly  
 65 70 75 80

Met Ala Gly Pro Ala Gln Gly Ser Leu Ala Glu Val Gly Ala Glu Ala  
 85 90 95

Ala Arg His Trp Arg Leu Gly Leu Ser His Thr Pro Trp Leu Leu Gly  
 100 105 110

Gly Cys Ile Leu Leu Ser Ser Leu Ser Ser Arg Gly Cys Thr Leu Gly  
 115 120 125

Cys Arg Pro Pro Val Ser Leu Thr Gly Tyr Ser Trp Gly Ser Leu Arg  
 130 135 140

Ser Trp Arg Cys Pro Gln Pro Pro Ser Pro Arg Leu Pro Pro Pro His  
 145 150 155 160

Thr Leu Arg Pro Gln Arg Phe Val Arg Val His Glu Ile Leu Glu Leu  
 165 170 175

Pro Gly Cys Ser Phe Cys Asn Ile Phe Asn Ile Cys Asn Pro Val Lys  
 180 185 190

Tyr Gln

&lt;210&gt; 79

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 79

Met Asp Pro Ala Ala Val Ala Leu Leu Ala Leu Ser Leu Pro Cys Ala  
 1 5 10 15

Leu Val Gly Val Gln Trp Glu Gln Ala Pro Trp Gly Pro Trp Arg Leu  
 20 25 30

Ser Leu Leu Ser Pro His Pro Arg Asp Pro Ile Val Ala Pro Val Ser



35                      40                      45  
 Thr Gln Gly Leu Ser Gln Ala Trp Pro Glu Val Gly Arg Gly Gln Arg  
     50                      55                      60  
 Glu Pro His Arg Ser Leu Tyr Gln Pro Leu Ser Tyr His Arg Val Gly  
     65                      70                      75                      80  
 Ala Leu Pro Ser His Arg Val Ser Gly Leu Trp Ala Pro Pro Ser Cys  
                     85                      90                      95  
 Thr Gly Pro Arg Gly His Phe  
                     100

&lt;210&gt; 80

&lt;211&gt; 477

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 80

Met Ala Ala Pro Thr Pro Ala Arg Pro Val Leu Thr His Leu Leu Val  
     1                      5                      10                      15  
 Ala Leu Phe Gly Met Gly Ser Trp Ala Ala Val Asn Gly Ile Trp Val  
                     20                      25                      30  
 Glu Leu Pro Val Val Val Lys Glu Leu Pro Glu Gly Trp Ser Leu Pro  
                     35                      40                      45  
 Ser Tyr Val Ser Val Leu Val Ala Leu Gly Asn Leu Gly Leu Leu Val  
                     50                      55                      60  
 Val Thr Leu Trp Arg Arg Leu Ala Pro Gly Lys Asp Glu Gln Val Pro  
     65                      70                      75                      80  
 Ile Arg Val Val Gln Val Leu Gly Met Val Gly Thr Ala Leu Leu Ala  
                     85                      90                      95  
 Ser Leu Trp His His Val Ala Pro Val Ala Gly Gln Leu His Ser Val  
                     100                      105                      110  
 Ala Phe Leu Ala Leu Ala Phe Val Leu Ala Leu Ala Cys Cys Ala Ser  
                     115                      120                      125  
 Asn Val Thr Phe Leu Pro Phe Leu Ser His Leu Pro Pro Arg Phe Leu  
                     130                      135                      140  
 Arg Ser Phe Phe Leu Gly Gln Gly Leu Ser Ala Leu Leu Pro Cys Val  
     145                      150                      155                      160  
 Leu Ala Leu Val Gln Gly Val Gly Arg Leu Glu Cys Pro Pro Ala Pro  
                     165                      170                      175  
 Ile Asn Gly Thr Pro Gly Pro Pro Leu Asp Phe Leu Glu Arg Phe Pro  
                     180                      185                      190  
 Ala Ser Thr Phe Phe Trp Ala Leu Thr Ala Leu Leu Val Ala Ser Ala  
                     195                      200                      205

Ala Ala Phe Glu Gly Leu Leu Leu Leu Pro Pro Pro Pro Ser Val  
 210 215 220  
 Pro Thr Gly Glu Leu Gly Ser Gly Leu Gln Val Gly Ala Pro Gly Ala  
 225 230 235 240  
 Glu Glu Glu Val Glu Glu Ser Ser Pro Leu Gln Glu Pro Pro Ser Gln  
 245 250 255  
 Ala Ala Gly Thr Thr Pro Gly Pro Asp Pro Lys Ala Tyr Gln Leu Leu  
 260 265 270  
 Ser Ala Arg Ser Ala Cys Leu Leu Gly Leu Leu Ala Ala Thr Asn Ala  
 275 280 285  
 Leu Thr Asn Gly Val Leu Pro Ala Val Gln Ser Phe Ser Cys Leu Pro  
 290 295 300  
 Tyr Gly Arg Leu Ala Tyr His Leu Ala Val Val Leu Gly Ser Ala Ala  
 305 310 315 320  
 Asn Pro Leu Ala Cys Phe Leu Ala Met Gly Val Leu Cys Arg Tyr Thr  
 325 330 335  
 Arg Thr Pro Ser Pro Cys Ala Gly Gly Thr Gln Gly Trp Glu Pro Gly  
 340 345 350  
 Pro Gly Ala Val Ser Pro Asp Ile Leu Leu Ala His Cys Arg Ser Leu  
 355 360 365  
 Ala Gly Leu Gly Gly Leu Ser Leu Leu Gly Val Phe Cys Gly Gly Tyr  
 370 375 380  
 Leu Met Ala Leu Ala Val Leu Ser Pro Cys Pro Pro Leu Val Gly Thr  
 385 390 395 400  
 Ser Ala Gly Val Val Leu Val Val Leu Ser Trp Val Leu Cys Leu Gly  
 405 410 415  
 Val Phe Ser Tyr Val Lys Val Ala Ala Ser Ser Leu Leu His Gly Gly  
 420 425 430  
 Gly Arg Pro Ala Leu Leu Ala Ala Gly Val Ala Ile Gln Val Gly Ser  
 435 440 445  
 Leu Leu Gly Ala Val Ala Met Phe Pro Pro Thr Ser Ile Tyr His Val  
 450 455 460  
 Phe His Ser Arg Lys Asp Cys Ala Asp Pro Cys Asp Ser  
 465 470 475

<210> 81  
 <211> 445  
 <212> PRT  
 <213> Homo sapiens

<400> 81

Met Ala Ala Pro Thr Pro Ala Arg Pro Val Leu Thr His Leu Leu Val  
 1 5 10 15  
 Ala Leu Phe Gly Met Gly Ser Trp Ala Ala Val Asn Gly Ile Trp Val  
 20 25 30  
 Glu Leu Pro Val Val Val Lys Glu Leu Pro Glu Gly Trp Ser Leu Pro  
 35 40 45  
 Ser Tyr Val Ser Val Leu Val Ala Leu Gly Asn Leu Gly Leu Leu Val  
 50 55 60  
 Val Thr Leu Trp Arg Arg Leu Ala Pro Gly Lys Asp Glu Gln Val Pro  
 65 70 75 80  
 Ile Arg Val Val Gln Val Leu Gly Met Val Gly Thr Ala Leu Leu Ala  
 85 90 95  
 Ser Leu Trp His His Val Ala Pro Val Ala Gly Gln Leu His Ser Val  
 100 105 110  
 Ala Phe Leu Ala Leu Ala Phe Val Leu Ala Leu Ala Cys Cys Ala Pro  
 115 120 125  
 Asn Val Thr Phe Leu Pro Phe Leu Ser His Leu Pro Pro Arg Phe Leu  
 130 135 140  
 Arg Ser Phe Phe Leu Gly Gln Gly Leu Ser Ala Leu Leu Pro Cys Val  
 145 150 155 160  
 Leu Ala Leu Val Gln Gly Val Gly Arg Leu Glu Cys Pro Pro Ala Pro  
 165 170 175  
 Ile Asn Gly Thr Pro Gly Pro Pro Leu Asp Phe Leu Glu Arg Phe Pro  
 180 185 190  
 Ala Ser Thr Phe Phe Trp Ala Leu Thr Ala Leu Leu Val Ala Ser Ala  
 195 200 205  
 Ala Ala Phe Gln Gly Leu Leu Leu Leu Pro Pro Pro Pro Ser Val  
 210 215 220  
 Pro Thr Gly Glu Leu Gly Ser Gly Leu Gln Val Gly Ala Pro Gly Ala  
 225 230 235 240  
 Glu Glu Glu Val Glu Glu Ser Ser Pro Leu Gln Glu Pro Pro Ser Gln  
 245 250 255  
 Ala Ala Gly Thr Thr Pro Gly Pro Asp Pro Lys Ala Tyr Gln Leu Leu  
 260 265 270  
 Ser Ala Arg Ser Ala Cys Leu Leu Gly Leu Leu Ala Ala Thr Asn Ala  
 275 280 285  
 Leu Thr Asn Gly Val Leu Pro Ala Val Gln Ser Phe Ser Cys Leu Pro  
 290 295 300  
 Tyr Gly Arg Leu Ala Tyr His Leu Ala Val Val Leu Gly Ser Ala Ala  
 305 310 315 320

Asn Pro Leu Ala Cys Phe Leu Ala Met Gly Val Leu Cys Arg Ser Leu  
325 330 335

Ala Gly Leu Gly Gly Leu Ser Leu Leu Gly Val Phe Cys Gly Gly Tyr  
340 345 350

Leu Met Ala Leu Ala Val Leu Ser Pro Cys Pro Pro Leu Val Gly Thr  
355 360 365

Ser Ala Gly Val Val Leu Val Val Leu Ser Trp Val Leu Cys Leu Gly  
370 375 380

Val Phe Ser Tyr Val Lys Val Ala Ala Ser Ser Leu Leu His Gly Gly  
385 390 395 400

Gly Arg Pro Ala Leu Leu Ala Ala Gly Val Ala Ile Gln Val Gly Ser  
405 410 415

Leu Leu Gly Ala Val Ala Met Phe Pro Pro Thr Ser Ile Tyr His Val  
420 425 430

Phe His Ser Arg Lys Asp Cys Ala Asp Pro Cys Asp Ser  
435 440 445

<210> 82

<211> 264

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (196)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (224)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (233)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 82

Met Leu Arg Leu Phe Glu Thr Phe Leu Glu Thr Ala Pro Gln Leu Thr  
1 5 10 15

Leu Val Leu Ala Ile Met Leu Gln Ser Gly Arg Ala Glu Tyr Tyr Gln  
20 25 30

Trp Val Gly Ile Cys Thr Ser Phe Leu Gly Ile Ser Trp Ala Leu Leu  
35 40 45

Asp Tyr His Arg Ala Leu Arg Thr Cys Leu Pro Ser Lys Pro Leu Leu  
50 55 60

Gly Leu Gly Ser Ser Val Ile Tyr Phe Leu Trp Asn Leu Leu Leu Leu

65	70	75	80
Trp Pro Arg Val Leu Ala Val Ala Leu Phe Ser Ala Leu Phe Pro Ser	85	90	95
Tyr Val Ala Leu His Phe Leu Gly Leu Trp Leu Val Leu Leu Leu Trp	100	105	110
Val Trp Leu Gln Gly Thr Asp Phe Met Pro Asp Pro Ser Ser Glu Trp	115	120	125
Leu Tyr Arg Val Thr Val Ala Thr Ile Leu Tyr Phe Ser Trp Phe Asn	130	135	140
Val Ala Glu Gly Arg Thr Arg Gly Arg Ala Ile Ile His Phe Ala Phe	145	150	155
Leu Leu Ser Asp Ser Ile Leu Leu Val Ala Thr Trp Val Thr His Ser	165	170	175
Ser Trp Leu Pro Ser Gly Ile Pro Leu Gln Leu Trp Leu Pro Val Gly	180	185	190
Cys Gly Cys Xaa Phe Leu Gly Leu Ala Leu Arg Leu Val Tyr Tyr His	195	200	205
Trp Leu His Pro Ser Cys Cys Trp Lys Pro Asp Pro Asp Gln Val Xaa	210	215	220
Gly Ala Arg Ser Leu Leu Ser Pro Xaa Gly Tyr Gln Leu Pro Gln Asn	225	230	235
Arg Arg Met Thr His Leu Ala Gln Lys Phe Phe Pro Lys Ala Lys Asp	245	250	255
Glu Ala Ala Ser Pro Val Lys Gly	260		

&lt;210&gt; 83

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids.

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (82)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 83

Leu Pro Tyr Pro Gly Leu Gly Gly His Arg Gly Cys Pro Leu Glu Phe  
 1 5 10 15

Phe Leu Pro Ser Pro Thr Pro Phe Ile Gln Phe Met Lys Gln Ile Phe  
 20 25 30

Ala Lys Ser Ser Leu Cys Ala Arg Asn Ile Ile Leu Ser Leu Gln Pro  
 35 40 45

Gly Thr Arg Pro Ala Thr Ser Leu Ala Ser Ser Xaa Thr Cys Thr Asn  
 50 55 60

Gln Ser Arg Val Arg Ser Gln Met Xaa Glu Xaa Arg Asp Ala Gln Leu  
 65 70 75 80

Trp Xaa Ala Pro Val Arg Thr Ser Gly Ile Ser Val Lys Leu Ala Trp  
 85 90 95

Pro Leu Leu Leu Leu Ser Arg Gly Cys Phe Ser Thr Lys Ser Leu Val  
 100 105 110

Ser Leu Val  
 115

&lt;210&gt; 84

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 84

Met Leu Arg Leu Phe Glu Thr Phe Leu Glu Thr Ala Pro Gln Leu Thr  
 1 5 10 15

Leu Val Leu Ala Ile Met Leu Gln Ser Gly Arg Ala Glu Tyr Tyr Gln  
 20 25 30

Trp Val Gly Ile Cys Thr Ser Phe Leu Gly Ile Ser Trp Ala Leu Leu  
 35 40 45

Asp Tyr His Arg Ala Leu Arg Thr Cys Leu Pro Ser Lys Pro Leu Leu  
 50 55 60

Gly Leu Gly Ser Ser Val Ile Tyr Phe Leu Trp Asn Leu Leu Leu Leu  
 65 70 75 80

Trp Pro Arg Val Leu Ala Val Ala Leu Phe Ser Ala Leu Phe Pro Ser  
 85 90 95

Tyr Val Ala Leu His Phe Leu Gly Leu Trp Leu Val Leu Leu Leu Trp  
 100 105 110

Val Trp Leu Gln Gly Thr Asp Phe Met Pro Asp Pro Ser Ser Glu Trp

115	120	125
Leu Tyr Arg Val Thr Val	Ala Thr Ile Leu Tyr	Phe Ser Trp Phe Asn
130	135	140
Val Ala Glu Gly Arg Thr	Arg Gly Arg Ala Ile	Ile His Phe Ala Phe
145	150	155
Leu Leu Ser Asp Ser Ile	Leu Leu Val Ala Thr	Trp Val Thr His Ser
165	170	175
Ser Trp Leu Pro Ser Gly	Ile Pro Leu Gln Leu Trp	Leu Pro Val Gly
180	185	190
Cys Gly Cys Phe Phe Leu	Gly Leu Ala Leu Arg Leu	Val Tyr Tyr His
195	200	205
Trp Leu His Pro Ser Cys	Cys Trp Lys Pro Asp Pro	Asp Gln Val Asp
210	215	220
Gly Ala Arg Ser Leu Leu	Ser Pro Glu Gly Tyr Gln	Leu Pro Gln Asn
225	230	235
Arg Arg Met Thr His Leu	Ala Gln Lys Phe Phe	Pro Lys Ala Lys Asp
245	250	255
Glu Ala Ala Ser Pro Val	Lys Gly	
260		

<210> 85  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 85  
 Met Asn Val Phe Leu Ser Leu Pro Leu Gly Ser Ser Leu Pro Pro Leu  
 1 5 10 15  
 Leu Phe Pro Pro Ser Leu Pro Ser Leu Phe Phe Pro Leu Pro Leu Tyr  
 20 25 30  
 Leu Ser Phe Ser Ala Pro Ser Pro Ala Thr Thr Pro Gly Phe Ile Ser  
 35 40 45  
 Leu Pro Gly His Ile Pro Ser Ser Ser  
 50 55

<210> 86  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 86

Cys His Pro Gln Gln Pro Ser Cys Arg Ile Pro Leu Phe Val Leu Phe  
 1 5 10 15

Ile Ser Gln Thr Ser Gln His Leu Gly Xaa Ile Glu Gly Ala Tyr Val  
 20 25 30

Glu Ile Leu Gly Ala Gly Ser Pro Asn Thr Ser Glu Thr Ile Pro Asn  
 35 40 45

Asn

&lt;210&gt; 87

&lt;211&gt; 52

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; .SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 87

Lys Glu Pro Thr Leu Lys Tyr Trp Gly Arg Val Pro Pro Ile Leu Leu  
 1 5 10 15

Lys Leu Phe Gln Thr Ile Glu Lys Glu Gly His Leu Pro Asn Ser Phe  
 20 25 30

Tyr Glu Ala Ser Ile Ile Leu Ile Leu Lys Pro Gly Arg Asp Thr Ala  
 35 40 45

Lys Xaa Lys Lys  
 50

&lt;210&gt; 88

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

Met Phe Phe Phe Leu Phe Pro Trp Val Leu Leu Ser Leu Pro Ser Ser  
 1 5 10 15

Ser Leu Pro Leu Ser Leu Leu Tyr Ser Ser Leu Ser Leu Ser Ile Cys  
 20 25 30

Pro Ser Leu Leu Gln Val Leu Pro Gln Pro Gln Asp Ser Ser Ala Ser  
 35 40 45

Leu Asp Thr Ser His Pro Ala Pro Asp Arg Ser Pro Pro Ser Leu Leu  
 50 55 60

Ile Leu Arg Ala Leu Ser Ser Ile Cys Leu Ser Pro Cys Gln Arg Pro



```

<400> 90
Asp Leu His Ile Lys Leu Leu Glu His Tyr Cys Leu Thr Ser Cys Lys
 1             5             10             15
Lys Val Leu Gln Leu

```

20

<210> 91  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 91  
 Pro Gln Ser Pro Gln Arg Gly Cys Tyr Ser Met Leu Xaa Val Leu Ser  
           1                          5                          10                          15

Val Ser His Pro Gln Pro Asn Lys Trp Arg Cys Val Val Pro Arg Gly  
                           20                          25                          30

Pro Phe Ser His Cys Leu Ala Ser Arg Arg Gly Val Leu Gln Gly Tyr  
                   35                          40                          45

Ser Phe Val Cys Thr Cys Arg Leu Val Gly Pro Glu Phe Phe Ser His  
           50                          55                          60

Val Gln Glu  
   65

<210> 92  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 92  
 Asp Leu His Ile Lys Leu Leu Glu His Tyr Cys Leu Thr Ser Cys Lys  
   1                          5                          10                          15

Lys Val Leu Gln Leu  
                   20

<210> 93  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<400> 93  
 Asp Gly Ala Pro Gly Pro Arg Val Gly His Gly His Pro Gly Trp Leu  
   1                          5                          10                          15

Gly Arg Arg Arg Gln Ala Leu His Val Leu Gln Leu Gly Met Trp Val  
                   20                          25                          30

Arg Glu Gly Ile Trp Phe Cys Tyr Leu Ala Val Val Phe Ser His Pro  
           35                          40                          45

Ser Phe Leu Thr Ile Lys Ser His Leu Gly Leu Glu Lys Lys Lys Lys  
 50 55 60

Lys Thr Arg  
 65

<210> 94  
 <211> 44  
 <212> PRT  
 <213> Homo sapiens

<400> 94  
 Met Leu Ser Ser Ile Leu Ser Gln Leu Met Val Ser Lys Pro Trp Gly  
 1 5 10 15  
 Val Phe Ile Ser Phe Ser Phe Ile Ser Leu Ser Phe Tyr His Ala Ile  
 20 25 30  
 Ser Ile Ser Ser Val Pro Ser Gly Arg Gln Val Val  
 35 40

<210> 95  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (145)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 95  
 Cys Pro Pro Pro Pro Lys Arg Gly Gly Ile Glu Xaa Glu Leu Gly Lys  
 1 5 10 15  
 Leu Trp Pro Thr Phe Glu Thr Phe Arg Ala Asn Arg Arg Thr Met Leu  
 20 25 30  
 Leu Glu Pro Leu Gly Xaa Pro Gly Gly Gly Xaa Arg Pro Phe Trp Lys  
 35 40 45

<400> 98  
Met Lys Ser Leu His Gly Arg Leu Leu Trp Gln Ser Ala  
1 5 10

<210> 99  
 <211> 353  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (260)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 99

```

Met Pro Trp Pro Leu Leu Leu Leu Leu Ala Val Ser Gly Ala Gln Thr
  1              5              10              15

Thr Arg Pro Cys Phe Pro Gly Cys Gln Cys Glu Val Glu Thr Phe Gly
              20              25              30

Leu Phe Asp Ser Phe Ser Leu Thr Arg Val Asp Cys Ser Gly Leu Gly
              35              40              45

Pro His Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp
              50              55              60

Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly
              65              70              75              80

Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu
              85              90              95

Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser
              100              105              110

Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe
              115              120              125

Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg
              130              135              140

Glu Val Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu
              145              150              155              160

His Val Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro
              165              170              175

Thr Arg Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala
              180              185              190

Trp Asn Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg
              195              200              205

Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala
              210              215              220

Phe Ala Gly Leu Gly Gly Leu Thr His Leu Ser Leu Ala Ser Leu Gln
              225              230              235              240

Arg Leu Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu Leu Pro Gly Leu

```

245										250					255				
Gln	Val	Leu	Xaa	Leu	Ser	Gly	Asn	Pro	Lys	Leu	Asn	Trp	Ala	Gly	Ala				
260										265					270				
Glu	Val	Phe	Ser	Gly	Leu	Ser	Ser	Leu	Gln	Glu	Leu	Asp	Leu	Ser	Gly				
275										280					285				
Thr	Asn	Leu	Val	Pro	Leu	Pro	Glu	Ala	Leu	Leu	Leu	His	Leu	Pro	Ala				
290										295					300				
Leu	Gln	Ser	Val	Ser	Val	Gly	Gln	Asp	Val	Arg	Cys	Arg	Arg	Leu	Val				
305										310					315				
Arg	Glu	Gly	Thr	Tyr	Pro	Arg	Arg	Pro	Gly	Ser	Ser	Pro	Lys	Val	Ala				
325										330					335				
Leu	His	Cys	Val	Asp	Thr	Arg	Glu	Ser	Ala	Ala	Arg	Gly	Pro	Thr	Ile				
340										345					350				
Leu																			

```
<210> 100
<211> 353
<212> PRT
<213> Homo sapiens
```

```

<400> 100
Met Pro Trp Pro Leu Leu Leu Leu Leu Ala Val Ser Gly Ala Gln Thr
  1          5          10          15

Thr Arg Pro Cys Phe Pro Gly Cys Gln Cys Glu Val Glu Thr Phe Gly
          20          25          30

Leu Phe Asp Ser Phe Ser Leu Thr Arg Val Asp Cys Ser Gly Leu Gly
          35          40          45

Pro His Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp
          50          55          60

Leu Ser Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly
  65          70          75          80

Pro Gly Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu
          85          90          95

Thr Ser Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser
          100          105          110

Leu Asp Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe
          115          120          125

Thr Ser Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg
          130          135          140

Glu Val Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu
  145          150          155          160

```

His Val Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro  
 165 170 175  
 Thr Arg Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala  
 180 185 190  
 Trp Asn Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg  
 195 200 205  
 Tyr Leu Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala  
 210 215 220  
 Phe Ala Gly Leu Gly Gly Leu Thr His Leu Ser Leu Ala Ser Leu Gln  
 225 230 235 240  
 Arg Leu Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu Leu Pro Gly Leu  
 245 250 255  
 Gln Val Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly Ala  
 260 265 270  
 Glu Val Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu Asp Leu Ser Gly  
 275 280 285  
 Thr Asn Leu Val Pro Leu Pro Glu Ala Leu Leu Leu His Leu Pro Ala  
 290 295 300  
 Leu Gln Ser Val Ser Val Gly Gln Asp Val Arg Cys Arg Arg Leu Val  
 305 310 315 320  
 Arg Glu Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser Pro Lys Val Ala  
 325 330 335  
 Leu His Cys Val Asp Thr Arg Glu Ser Ala Ala Arg Gly Pro Thr Ile  
 340 345 350

Leu

<210> 101  
 <211> 285  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (259)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (262)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (280)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 101

```

Met Gly Phe Leu Gln Leu Leu Val Val Ala Val Leu Ala Ser Glu His
 1           5           10           15

Arg Val Ala Gly Ala Ala Glu Val Phe Gly Asn Ser Ser Glu Gly Leu
          20           25           30

Ile Glu Phe Ser Val Gly Lys Phe Arg Tyr Phe Glu Leu Asn Arg Pro
      35           40           45

Phe Pro Glu Glu Ala Ile Leu His Asp Ile Ser Ser Asn Val Thr Phe
 50           55           60

Leu Ile Phe Gln Ile His Ser Gln Tyr Gln Asn Thr Thr Val Ser Phe
65           70           75           80

Ser Pro Thr Leu Leu Ser Asn Ser Ser Glu Thr Gly Thr Ala Ser Gly
          85           90           95

Leu Val Phe Ile Leu Arg Pro Glu Gln Ser Thr Cys Thr Trp Tyr Leu
          100          105          110

Gly Thr Ser Gly Ile Gln Pro Val Gln Asn Met Ala Ile Leu Leu Ser
      115           120           125

Tyr Ser Glu Arg Asp Pro Val Pro Gly Gly Cys Asn Leu Glu Phe Asp
130           135           140

Leu Asp Ile Asp Pro Asn Ile Tyr Leu Glu Tyr Asn Phe Phe Glu Thr
145           150           155           160

Thr Ile Lys Phe Ala Pro Ala Asn Leu Gly Tyr Ala Arg Gly Val Asp
          165          170          175

Pro Pro Pro Cys Asp Ala Gly Thr Asp Gln Asp Ser Arg Trp Arg Leu
          180          185          190

Gln Tyr Asp Val Tyr Gln Tyr Phe Leu Pro Glu Asn Asp Leu Thr Glu
      195           200           205

Glu Met Leu Leu Lys His Leu Gln Arg Met Val Ser Val Pro Gln Val
210           215           220

Lys Ala Ser Ala Leu Lys Val Val Thr Leu Thr Ala Asn Asp Lys Thr
225           230           235           240

Ser Val Ser Phe Ser Ser Leu Pro Gly Gln Gly Val Ile Tyr Asn Val
          245          250          255

Ile Val Xaa Gly Pro Xaa Ser Lys Tyr Ile Cys Cys Leu His Ser Cys
      260           265           270

Ser His Ile Arg Leu Gln Leu Xaa Arg Ala Gly Arg Gly
      275           280           285

```

<210> 102



&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 102

Leu Phe Leu Phe Ser Lys Tyr Thr His Ser Ile Arg Ile Gln Leu Phe  
 1 5 10 15

Pro Phe Leu Arg Gly Val Asp Pro Pro Pro Cys Asp Ala Gly Thr Asp  
 20 25 30

Gln Asp Ser Arg Trp Arg Leu Gln Tyr Asp Val Tyr Gln Tyr Phe Leu  
 35 40 45

Pro Glu Asn Asp Leu Thr Glu Glu Met Leu Leu Lys His Leu Gln Arg  
 50 55 60

Met Val Ser Val Pro Gln Val Lys Ala Ser Ala Leu Lys Val Val Thr  
 65 70 75 80

Leu Thr Ala Asn Asp Lys Thr Ser Val Ser Phe Ser Ser Leu Pro Gly  
 85 90 95

Gln Gly Val Ile Tyr Asn Val Ile Val Trp Asp Pro Phe Leu Asn Thr  
 100 105 110

Ser Ala Ala Tyr Ile Pro Ala His Thr Tyr Ala Cys Ser Phe Glu Ala  
 115 120 125

Gly Glu Gly Ser Cys Ala Ser Leu Gly Arg Val Ser Ser Lys Val Phe  
 130 135 140

Phe Thr Leu Phe Ala Leu Leu Gly Phe Phe Ile Cys Phe Phe Gly His  
 145 150 155 160

Arg Phe Trp Lys Thr Glu Leu Phe Phe Ile Gly Phe Ile Ile Met Gly  
 165 170 175

Phe Phe Phe Tyr Ile Leu Ile Thr Arg Leu Thr Pro Ile Lys Tyr Asp  
 180 185 190

Val Asn Leu Ile Leu Thr Ala Val Thr Gly Ser Val Gly Gly Met Phe  
 195 200 205

Leu Val Ala Val Trp Trp Arg Phe Gly Ile Leu Ser Ile Cys Met Leu  
 210 215 220

Cys Val Gly Leu Val Leu Gly Phe Leu Ile Ser Ser Val Thr Phe Phe  
 225 230 235 240

Thr Pro Leu Gly Asn Leu Lys Ile Phe His Asp Asp Gly Val Phe Trp  
 245 250 255

Val Thr Phe Ser Cys Ile Ala Ile Leu Ile Pro Val Val Phe Met Gly  
 260 265 270

Cys Leu Arg Ile Leu Asn Ile Leu Thr Cys Gly Val Ile Gly Ser Tyr  
 275 280 285

Ser Val Val Leu Ala Ile Asp Ser Tyr Trp Ser Thr Ser Leu Ser Tyr

290                      295                      300  
 Ile Thr Leu Asn Val Leu Lys Arg Ala Leu Asn Lys Asp Phe His Arg  
 305                      310                      315                      320  
 Ala Phe Thr Asn Val Pro Phe Gln Thr Asn Asp Phe Ile Ile Leu Ala  
 325                      330                      335  
 Val Trp Gly Met Leu Ala Val Ser Gly Ile Thr Leu Gln Ile Arg Arg  
 340                      345                      350  
 Glu Arg Gly Arg Pro Phe Phe Pro Pro His Pro Tyr Lys Leu Trp Lys  
 355                      360                      365  
 Gln Glu Arg Glu Arg Arg Val Thr Asn Ile Leu Asp Pro Ser Tyr His  
 370                      375                      380  
 Ile Pro Pro Leu Arg Glu Arg Leu Tyr Gly Arg Leu Thr Gln Ile Lys  
 385                      390                      395                      400  
 Gly Leu Phe Gln Lys Glu Gln Pro Ala Gly Glu Arg Thr Pro Leu Leu  
 405                      410                      415

Leu

<210> 103

<211> 363

<212> PRT

<213> Homo sapiens

<400> 103

Met Gly Phe Leu Gln Leu Leu Val Val Ala Val Leu Ala Ser Glu His  
 1                      5                      10                      15  
 Arg Val Ala Gly Ala Ala Glu Val Phe Gly Asn Ser Ser Glu Gly Leu  
 20                      25                      30  
 Ile Glu Phe Ser Val Gly Lys Phe Arg Tyr Phe Glu Leu Asn Arg Pro  
 35                      40                      45  
 Phe Pro Glu Glu Ala Ile Leu His Asp Ile Ser Ser Asn Val Thr Phe  
 50                      55                      60  
 Leu Ile Phe Gln Ile His Ser Gln Tyr Gln Asn Thr Thr Val Ser Phe  
 65                      70                      75                      80  
 Ser Pro Thr Leu Leu Ser Asn Ser Ser Glu Thr Gly Thr Ala Ser Gly  
 85                      90                      95  
 Leu Val Phe Ile Leu Arg Pro Glu Gln Ser Thr Cys Thr Trp Tyr Leu  
 100                      105                      110  
 Gly Thr Ser Gly Ile Gln Pro Val Gln Asn Met Ala Ile Leu Leu Ser  
 115                      120                      125  
 Tyr Ser Glu Arg Asp Pro Val Pro Gly Gly Cys Asn Leu Glu Phe Asp  
 130                      135                      140

Leu Asp Ile Asp Pro Asn Ile Tyr Leu Glu Tyr Asn Phe Phe Glu Thr  
 145 150 155 160  
 Thr Ile Lys Phe Ala Pro Ala Asn Leu Gly Tyr Ala Arg Gly Val Asp  
 165 170 175  
 Pro Pro Pro Cys Asp Ala Gly Thr Asp Gln Asp Ser Arg Trp Arg Leu  
 180 185 190  
 Gln Tyr Asp Val Tyr Gln Tyr Phe Leu Pro Glu Asn Asp Leu Thr Glu  
 195 200 205  
 Glu Met Leu Leu Lys His Leu Gln Arg Met Val Ser Val Pro Gln Val  
 210 215 220  
 Lys Ala Ser Ala Leu Lys Val Val Thr Leu Thr Ala Asn Asp Lys Thr  
 225 230 235 240  
 Ser Val Ser Phe Ser Ser Leu Pro Gly Gln Gly Val Ile Tyr Asn Val  
 245 250 255  
 Ile Val Trp Asp Leu Phe Leu Asn Thr Ser Ala Ala Tyr Ile Pro Ala  
 260 265 270  
 His Thr Tyr Ala Cys Ser Phe Glu Ala Gly Glu Gly Ser Cys Ala Ser  
 275 280 285  
 Leu Gly Arg Val Ser Ser Lys Val Phe Phe Thr Leu Phe Ala Leu Leu  
 290 295 300  
 Gly Phe Phe Ile Cys Phe Phe Gly Gln Arg Phe Trp Lys Thr Glu Leu  
 305 310 315 320  
 Phe Phe Ile Gly Phe Ile Ile Met Gly Phe Phe Phe Tyr Ile Leu Ile  
 325 330 335  
 Thr Arg Leu Thr Pro Ile Lys Tyr Asp Ala Glu His Thr Asp Leu Trp  
 340 345 350  
 Ser His Trp Leu Leu Phe Gly Gly Phe Ser His  
 355 360

&lt;210&gt; 104

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids.

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 104

Met Leu Val Lys Gly Glu Gly Val Arg Leu Val Leu Arg Leu Leu Gly  
 1 5 10 15

Arg Asn Gly Leu His Leu Ala Pro Leu Pro Ala Leu Leu Leu His Phe  
 20 25 30

Leu Met Leu Pro Leu Ser Ala Pro Val Xaa Tyr Ser Leu Pro Ala Gly  
 35 40 45

Xaa Cys Leu Gln Gly Thr Gly Ser Ser Ser Phe Tyr Ser Val Lys Phe  
 50 55 60

Ser Gly Ser Leu Xaa Gly Gly Lys Gly Lys Pro Xaa Asn Trp Pro  
 65 70 75

&lt;210&gt; 105

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 105

Met Leu Val Lys Gly Glu Gly Val Arg Leu Val Leu Arg Leu Leu Gly  
 1 5 10 15

Arg Asn Gly Leu His Leu Ala Pro Leu Pro Ala Leu Leu Leu His Phe  
 20 25 30

Leu Met Leu Pro Leu Ser Ala Pro Val Ala Tyr Ser Leu Pro Ala Gly  
 35 40 45

Ala Cys Leu Gln Gly Thr Gly Ser Ser Ser Leu Leu Leu Cys Gln Val  
 50 55 60

Gln Leu Leu Thr Ala Arg Glu  
 65 70

&lt;210&gt; 106

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 106

Met Phe Glu Ala Leu Trp Ala Thr Asp Tyr Leu Cys Cys Leu Phe Leu  
 1 5 10 15

Phe Val Ser Phe Phe Arg Pro Leu Gln Lys Cys Lys Asn His Ser  
 20 25 30

<210> 107  
 <211> 26  
 <212> PRT  
 <213> Homo sapiens

<400> 107  
 Glu Ile Met Thr Arg Thr Asp Trp Val Lys Met Trp Phe Val Phe Leu  
 1 5 10 15

Leu Gln Leu Ala Pro Ala Cys Pro Pro Arg  
 20 25

<210> 108  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 108  
 Met Phe Glu Ala Leu Trp Ala Thr Asp Tyr Leu Cys Cys Leu Phe Leu  
 1 5 10 15

Phe Val Ser Phe Phe Arg Pro Leu Gln Lys Cys Lys Asn His Ser  
 20 25 30

<210> 109  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 109  
 Met Glu Phe Val Ser Gly Gly Lys Thr Glu Ile Leu Met Leu Phe Thr  
 1 5 10 15

Leu Leu Val Ser Cys Tyr Val Phe Leu Pro Leu Ala Leu Pro Cys Phe  
 20 25 30

Ala Phe Phe Phe Ser Phe Trp Pro Ile Pro Phe Tyr Met Cys Pro Gln  
 35 40 45

Gln Arg Trp Gly Asp Thr Glu His Pro Gly Ser Phe Pro Ala Leu Leu  
 50 55 60

Gly Arg Pro Arg Leu Gln Ala Pro Ala Val Glu Thr Leu Lys Gly Asn  
 65 70 75 80

Lys Gln Pro Ser Thr Leu Pro Asp Pro Arg Leu Phe Arg Glu Ala Ala  
 85 90 95

His Phe His Pro Gly Pro Arg Thr Pro Ser Leu Cys Pro Thr Arg Ile  
 100 105 110

Ser Leu Asn Gly Arg Asp  
115

<210> 110  
<211> 157  
<212> PRT  
<213> Homo sapiens

<400> 110  
Ser Cys Leu Pro Pro Leu Pro Leu Asn Leu Pro Leu Pro Pro Cys Leu  
1 5 10 15  
Cys Pro Leu Leu Gln Leu Asn Ala Ala Met Thr Arg Lys Glu Lys Thr  
20 25 30  
Lys Glu Gly Gln Arg Ala Ala Gln Phe Ser Ala Gly Ala Asp Ala Gly  
35 40 45  
Ser Gly Gly Gly Leu Ser Arg Gln Lys Asp Thr Lys Arg Pro Met Leu  
50 55 60  
Leu Val Ile His Asp Val Val Leu Glu Leu Leu Thr Ser Ser Asp Cys  
65 70 75 80  
His Ala Asn Pro Arg Lys Tyr Pro Thr Cys Gln Lys Ser Glu Val Leu  
85 90 95  
Gly Val Ser Ile Tyr Val Ser Ile Cys Pro Ser Thr Arg Pro Arg Asp  
100 105 110  
Lys Asn Lys Thr Lys Lys Arg Cys Gln Val Leu Glu Ala Val Leu Val  
115 120 125  
Ser Lys Pro Ser Gly Ser Cys His Gln Gly Ser Phe Glu Ile Val Pro  
130 135 140  
His Val Lys Gly Asn Leu Ala Phe Thr Ser Ser Asn His  
145 150 155

<210> 111  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 111  
Met Glu Phe Val Ser Gly Gly Lys Thr Glu Ile Leu Met Leu Phe Thr  
1 5 10 15  
Leu Leu Val Ser Cys Tyr Val Phe Leu Pro Leu Ala Leu Pro Cys Phe  
20 25 30  
Ala Phe Phe Phe Ser Phe Trp Pro Ile Pro Phe Tyr Met Cys Pro Gln  
35 40 45  
Gln Arg Trp Gly Asp Thr Glu His Pro Gly Ser Phe Pro Ala Leu Leu  
50 55 60

Gly Arg Pro Arg Leu Gln Ala Pro Ala Val Glu Thr Leu Lys Gly Asn  
 65 70 75 80  
 Lys Gln Pro Ser Thr Leu Pro Asp Pro Arg Leu Phe Arg Glu Ala Ala  
 85 90 95  
 His Phe His Pro Gly Pro Arg Thr Pro Ser Leu Cys Pro Thr Arg Ile  
 100 105 110  
 Ser Leu Asn Gly Arg Asp  
 115

<210> 112  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Leu Ala Leu His Arg Cys Ser Leu Ser Cys Leu Gln Val Ser Val Cys  
 1 5 10 15  
 Gly Val Gly Tyr Gly Glu Glu Asn Leu His Gly Gly Pro Pro Gly Leu  
 20 25 30  
 Val Val Gln Ala Val Pro Arg His Ile Leu Ile Pro Ser Met Gly His  
 35 40 45  
 Leu Lys Met Asn Asn Asn Ser Gln Asn Phe Cys Glu Ile Lys Ser Ser  
 50 55 60  
 Phe Lys Arg Ser His Leu Ser Lys Arg Phe  
 65 70

<210> 113  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 113  
 Met Lys Ser Gly Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys  
 1 5 10 15  
 Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile  
 20 25 30  
 Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val  
 35 40 45  
 Gln Gln Phe Lys Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp  
 50 55 60  
 Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu  
 65 70 75 80  
 Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu

	85		90		95
Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser	100		105		110
Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu	115		120		125
His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro	130		135		140
Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu	145		150		155
Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro	165		170		175
Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser	180		185		190
Arg Leu Thr Asp Val Thr Leu	195				

<210> 114  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<400> 114
Met Lys Ser Gly Leu Trp Tyr Phe Phe Leu Phe Cys Leu Arg Ile Lys
1 5 10 15
Val Leu Thr Gly Glu Ile Asn Gly Ser Ala Asn Tyr Glu Met Phe Ile
20 25 30
Phe His Asn Gly Gly Val Gln Ile Leu Cys Lys Tyr Pro Asp Ile Val
35 40 45
Gln Gln Phe Lys Met Gln Leu Leu Lys Gly Gly Gln Ile Leu Cys Asp
50 55 60
Leu Thr Lys Thr Lys Gly Ser Gly Asn Thr Val Ser Ile Lys Ser Leu
65 70 75 80
Lys Phe Cys His Ser Gln Leu Ser Asn Asn Ser Val Ser Phe Phe Leu
85 90 95
Tyr Asn Leu Asp His Ser His Ala Asn Tyr Tyr Phe Cys Asn Leu Ser
100 105 110
Ile Phe Asp Pro Pro Pro Phe Lys Val Thr Leu Thr Gly Gly Tyr Leu
115 120 125
His Ile Tyr Glu Ser Gln Leu Cys Cys Gln Leu Lys Phe Trp Leu Pro
130 135 140
Ile Gly Cys Ala Ala Phe Val Val Val Cys Ile Leu Gly Cys Ile Leu
145 150 155 160



Ile Cys Trp Leu Thr Lys Lys Lys Tyr Ser Ser Ser Val His Asp Pro  
                           165                          170                          175

Asn Gly Glu Tyr Met Phe Met Arg Ala Val Asn Thr Ala Lys Lys Ser  
                           180                          185                          190

Arg Leu Thr Asp Val Thr Leu  
                           195

<210> 115

<211> 91

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 115

Met Val Leu Arg Gly Trp Gly Leu Ala Trp Ser Xaa Ser Pro Val Val  
   1                          5                          10                          15

Cys Gly Tyr Ser Gly Asp Met Lys Gly Val Cys Trp Gly Arg Ser Asp  
                           20                          25                          30

His Ser Leu Leu Pro Ser Glu Ile Leu Leu Pro Pro Ala Pro Cys Pro  
                           35                          40                          45

Xaa Ser Xaa Val Leu His Asn Pro Pro Pro Thr Pro His Leu Pro Ser  
                           50                          55                          60

Pro Val Leu Val Arg Ile Gln Glu Ala Pro Thr Trp Ala Gln Arg Ser  
   65                          70                          75                          80

Ser Leu Gly Ala Ser Pro Leu His Lys Gly Asp  
                           85                          90

<210> 116

<211> 6

<212> PRT

<213> Homo sapiens

<400> 116

Trp Ala Leu Pro Met Ser

1

5

&lt;210&gt; 117

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 117

Gly Cys Ser Leu Tyr Asn Ser Phe Asn Asn Leu Leu Cys Leu

1

5

10

&lt;210&gt; 118

&lt;211&gt; 4

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 118

Leu Arg Glu Leu

1

&lt;210&gt; 119

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 119

Met Val Leu Arg Gly Trp Gly Leu Ala Trp Ser Leu Ser Pro Val Val

1

5

10

15

Cys Gly Tyr Ser Gly Asp Met Lys Gly Val Cys Trp Gly Arg Ser Asp

20

25

30

His Ser Leu Leu Pro Ser Glu Ile Leu Leu Pro Pro Ala Pro Cys Pro

35

40

45

Ser Ser Ala Val Leu His Asn Pro Pro Pro Thr Pro His Leu Pro Ser

50

55

60

Pro Val Leu Val Arg Ile Gln Glu Ala Pro Thr Trp Ala Gln Arg Ser

65

70

75

80

Ser Leu Gly Ala Ser Pro Leu His Lys Gly Asp

85

90

&lt;210&gt; 120

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 120

Glu Asp Met Pro Arg Arg Lys Glu Glu Leu Thr Asp Tyr Gln Lys Lys

1

5

10

15

Lys Val Ile Leu Gln Asn Leu Lys His Ser Leu Phe Leu Ser Leu Leu  
                   20                  25                  30  
 Ser His Tyr Phe Tyr Ser Asn Pro Leu Glu Tyr Leu His Phe Ala Ser  
                   35                  40                  45  
 Glu Gln Arg Asp Lys Phe Phe Ser His His Val Cys Thr Gly Val Val  
                   50                  55                  60  
 Leu Ile Leu Asp Ile Ala Gly Thr Asn Phe Ser  
                   65                  70                  75

<210> 121  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 121  
 Met Met Ile Tyr Phe Ala Leu Leu Leu Ala Ser Leu Phe Phe Leu Leu  
   1                  5                  10                  15  
 Lys Val Lys Ser His Phe Gly Cys Lys Asn Val Thr Thr Thr Ser Ala  
                   20                  25                  30  
 Arg Ile Phe Leu Lys Pro Leu Cys Thr Pro Lys Ser Ile Phe Pro Leu  
                   35                  40                  45  
 Ser Arg Tyr Gly Arg Met Ser Ser  
                   50                  55

<210> 122  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 122  
 Met Met Ile Tyr Phe Ala Leu Leu Leu Ala Ser Leu Phe Phe Leu Leu  
   1                  5                  10                  15  
 Lys Val Lys Ser His Phe Gly Cys Lys Asn Val Thr Thr Thr Ser Ala  
                   20                  25                  30  
 Arg Ile Phe Leu Lys Pro Leu Cys Thr Pro Lys Ser Ile Phe Pro Leu  
                   35                  40                  45  
 Ser Arg Tyr Gly Arg Met Ser Ser  
                   50                  55

<210> 123  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 123

Met Gly Asn Gln Asp Glu Asn Gln Gly Leu Ser Val Ile Arg Leu Leu  
 1 5 10 15  
 Leu Ile Ile Thr Ile Arg Arg Val Gln Met Trp Asp Lys Ile Leu Thr  
 20 25 30  
 Pro Ala Phe Ser Gln Met Val Asn Leu Pro Val Ala Leu Glu Leu His  
 35 40 45  
 Ile Val Leu Phe Val Cys Phe Thr Glu Ser Val  
 50 55

&lt;210&gt; 124

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 124

Gln Arg Ala Met Ala Cys Xaa Phe Gly Ile Leu Leu Ile Val Ser Ala  
 1 5 10 15  
 Thr Leu Cys Phe Gly Xaa Leu Xaa Gly Phe Leu Met Thr Leu Pro Gln  
 20 25 30  
 Lys Arg Lys Ser Phe Gln Ser Lys Ser Phe Val Arg Leu Lys Asp Val  
 35 40 45  
 Thr Ala Tyr Met Trp Glu Lys Val Leu Thr Phe Leu Arg Leu Glu Thr  
 50 55 60  
 Pro Lys Leu Glu Glu Ala Glu Met Val Glu Asn His Asn Tyr Tyr Leu  
 65 70 75 80  
 Asp Glu Phe Ala Asn Leu Leu Asp Glu Leu Leu Met Lys Ile Asn Gly  
 85 90 95  
 Leu Ser Asp Ser Leu Gln Leu Pro Leu Leu Glu Lys Thr Ser Xaa Asn

100

105

110

Thr Gly

&lt;210&gt; 125

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 125

Met	Asp	Ile	Leu	Met	Leu	Leu	Leu	Leu	Leu	Cys	Val	Ile	Tyr	Gly	Arg
1				5					10					15	

Phe	Ser	Gln	Asp	Glu	Tyr	Ser	Leu	Asn	Gln	Ala	Ile	Arg	Lys	Glu	Phe
			20					25					30		

Thr	Arg	Asn	Ala	Arg	Asn	Cys	Leu	Gly	Gly	Leu	Arg	Asn	Ile	Ala	Asp
		35					40					45			

Trp	Trp	Asp	Trp	Ser	Leu	Thr	Thr	Leu	Leu	Asp	Gly	Leu	Tyr	Pro	Gly
	50					55					60				

Gly	Thr	Pro	Ser	Ala	Arg	Val	Pro	Gly	Ala	Ser	Ala	Trp	Ser	Ser	Trp
65					70					75					80

Xaa	Lys	Met	Xaa	Thr
				85

&lt;210&gt; 126

&lt;211&gt; 561

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 126

Met	Asp	Ile	Leu	Met	Leu	Leu	Leu	Leu	Leu	Cys	Val	Ile	Tyr	Gly	Arg
1				5					10					15	

Phe	Ser	Gln	Asp	Glu	Tyr	Ser	Leu	Asn	Gln	Ala	Ile	Arg	Lys	Glu	Phe
			20					25					30		

Thr	Arg	Asn	Ala	Arg	Asn	Cys	Leu	Gly	Gly	Leu	Arg	Asn	Ile	Ala	Asp
		35					40					45			

Trp	Trp	Asp	Trp	Ser	Leu	Thr	Thr	Leu	Leu	Asp	Gly	Leu	Tyr	Pro	Gly
	50					55					60				

Gly Thr Pro Ser Ala Arg Val Pro Gly Ala Gln Pro Gly Ala Leu Gly  
 65 70 75 80  
 Gly Lys Cys Tyr Leu Ile Gly Ser Ser Val Ile Arg Gln Leu Lys Val  
 85 90 95  
 Phe Pro Arg His Leu Cys Lys Pro Pro Arg Pro Phe Ser Ala Leu Ile  
 100 105 110  
 Glu Asp Ser Ile Pro Thr Cys Ser Pro Glu Val Gly Gly Pro Glu Asn  
 115 120 125  
 Pro Tyr Leu Ile Asp Pro Glu Asn Gln Asn Val Thr Leu Asn Gly Pro  
 130 135 140  
 Gly Gly Cys Gly Thr Arg Glu Asp Cys Val Leu Ser Leu Gly Arg Thr  
 145 150 155 160  
 Arg Thr Glu Ala His Thr Ala Leu Ser Arg Leu Arg Ala Ser Met Trp  
 165 170 175  
 Ile Asp Arg Ser Thr Arg Ala Val Ser Val His Phe Thr Leu Tyr Asn  
 180 185 190  
 Pro Pro Thr Gln Leu Phe Thr Ser Val Ser Leu Arg Val Glu Ile Leu  
 195 200 205  
 Pro Thr Gly Ser Leu Val Pro Ser Ser Leu Val Glu Ser Phe Ser Ile  
 210 215 220  
 Phe Arg Ser Asp Ser Ala Leu Gln Tyr His Leu Met Leu Pro Gln Leu  
 225 230 235 240  
 Val Phe Leu Ala Leu Ser Leu Ile His Leu Cys Val Gln Leu Tyr Arg  
 245 250 255  
 Met Met Asp Lys Gly Val Leu Ser Tyr Trp Arg Lys Pro Arg Asn Trp  
 260 265 270  
 Leu Glu Leu Ser Val Val Gly Val Ser Leu Thr Tyr Tyr Ala Val Ser  
 275 280 285  
 Gly His Leu Val Thr Leu Ala Gly Asp Val Thr Asn Gln Phe His Arg  
 290 295 300  
 Gly Leu Cys Arg Ala Phe Met Asp Leu Thr Leu Met Ala Ser Trp Asn  
 305 310 315 320  
 Gln Arg Ala Arg Trp Leu Arg Gly Ile Leu Leu Phe Leu Phe Thr Leu  
 325 330 335  
 Lys Cys Val Tyr Leu Pro Gly Ile Gln Asn Thr Met Ala Ser Cys Ser  
 340 345 350  
 Ser Met Met Arg His Ser Leu Pro Ser Ile Phe Val Ala Gly Leu Val  
 355 360 365  
 Gly Ala Leu Met Leu Ala Ala Leu Ser His Leu His Arg Phe Leu Leu  
 370 375 380

Ser Met Trp Val Leu Pro Pro Gly Thr Phe Thr Asp Ala Phe Pro Gly  
 385 390 395 400  
 Leu Leu Phe His Phe Pro Arg Arg Ser Gln Lys Asp Cys Leu Leu Gly  
 405 410 415  
 Leu Ser Lys Ser Asp Gln Arg Ala Met Ala Cys Tyr Phe Gly Ile Leu  
 420 425 430  
 Leu Ile Val Ser Ala Thr Leu Cys Phe Gly Met Leu Arg Gly Phe Leu  
 435 440 445  
 Met Thr Leu Pro Gln Lys Arg Lys Ser Phe Gln Ser Lys Ser Phe Val  
 450 455 460  
 Arg Leu Lys Asp Val Thr Ala Tyr Met Trp Glu Lys Val Leu Thr Phe  
 465 470 475 480  
 Leu Arg Leu Glu Thr Pro Lys Leu Glu Glu Ala Glu Met Val Glu Asn  
 485 490 495  
 His Asn Tyr Tyr Leu Asp Glu Phe Ala Asn Leu Leu Asp Glu Leu Leu  
 500 505 510  
 Met Lys Ile Asn Gly Leu Ser Asp Ser Leu Gln Leu Pro Leu Leu Glu  
 515 520 525  
 Lys Thr Ser Asn Asn Thr Gly Glu Ala Arg Thr Glu Glu Ser Pro Leu  
 530 535 540  
 Val Asp Ile Ser Ser Tyr Gln Ala Ala Glu Pro Ala Asp Ile Lys Asp  
 545 550 555 560  
 Phe

&lt;210&gt; 127

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 127

Xaa His Lys Thr Phe Pro Ser Glu Gly Ser Ser Cys Leu Ser Ser Val  
 1 5 10 15  
 Thr Leu Xaa Thr Thr Ala Gln Ala Tyr Phe Thr Leu Pro Pro Pro Thr  
 20 25 30  
 His His Cys Pro Leu Ser Ala Thr Lys Pro His Tyr Ser Ser Asn Asp  
 35 40 45  
 Ala Ser Leu Val Ser Gly Lys Pro Ile Trp Cys Thr Lys Met Leu Cys  
 50 55 60  
 Asn Thr Lys Trp Leu Leu Pro Leu Ile Leu Leu Asn Asn Val Asn Ser  
 65 70 75 80  
 Xaa Arg Ile Asn Phe Met Leu Cys  
 85

<210> 128  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 128  
 Met Trp Lys Val Leu Arg Pro Ser Leu Phe Thr Ala Gly Leu Phe Thr  
 1 5 10 15  
 Ala Ser Phe Phe Tyr Ser Asp Leu Lys Val Ser Thr Glu Leu Met Lys  
 20 25 30  
 Leu Gln His Met Val Phe Lys Ser Phe Pro Leu Lys Cys Thr Leu Glu  
 35 40 45  
 Asn Trp Val Pro Gln Pro His Tyr  
 50 55

<210> 129  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 129  
 Met Trp Lys Val Leu Arg Pro Ser Leu Phe Thr Ala Gly Leu Phe Thr  
 1 5 10 15  
 Ala Ser Phe Phe Tyr Ser Asp Leu Lys Val Ser Thr Glu Leu Met Lys  
 20 25 30  
 Leu Gln His Met Val Phe Lys Ser Phe Pro Leu Lys Cys Thr Leu Glu  
 35 40 45  
 Asn Trp Val Pro Gln Pro Gln Leu Leu Asn  
 50 55



<210> 130  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 130  
 Cys Leu Glu Thr Phe Trp Ser Leu Tyr Leu Gly Gly Trp Gly Met Val  
           1                  5                  10                  15  
 Gly Cys Val Cys Tyr Trp His Pro Val Asn Arg Ser Gln Gly Cys Arg  
                   20                  25                  30

<210> 131  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (142)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 131  
 Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser Leu  
           1                  5                  10                  15  
 Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe Glu Thr  
                   20                  25                  30  
 Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser Cys His Thr  
                   35                  40                  45  
 Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe Gln Val Lys Ala  
           50                  55                  60  
 Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val Ser Tyr Asp Trp Leu  
           65                  70                  75                  80  
 Ile Leu Gln Gly Pro Ala Lys Pro Val Phe Glu Gly Asp Leu Leu Val  
                   85                  90                  95  
 Leu Arg Cys Gln Ala Trp Gln Asp Trp Pro Leu Thr Gln Val Thr Phe  
                   100                  105                  110  
 Tyr Arg Asp Gly Ser Ala Leu Gly Pro Pro Gly Pro Asn Arg Glu Phe  
           115                  120                  125  
 Ser Ile Thr Val Val Gln Lys Ala Asp Ser Gly His Tyr Xaa Cys Ser  
           130                  135                  140  
 Gly Ile Phe Gln Ser Pro Gly Pro Gly Ile Pro Glu Thr Ala Ser Val  
           145                  150                  155                  160  
 Val Ala Ile Thr Val Gln Glu Leu Phe Pro Ala Pro Ile Leu Leu Leu  
                   165                  170                  175

Gln Gly Trp Lys Asp Ser Ala Lys Gln Gly Gly Ser Pro Gln Asn Ser  
 180 185 190

Arg Ser Pro Gln Leu Gln Lys  
 195

<210> 132  
 <211> 2  
 <212> PRT  
 <213> Homo sapiens

<400> 132  
 Ser Trp  
 1

<210> 133  
 <211> 359  
 <212> PRT  
 <213> Homo sapiens

<400> 133  
 Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser Leu  
 1 5 10 15

Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe Glu Thr  
 20 25 30

Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser Cys His Thr  
 35 40 45

Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe Gln Val Lys Ala  
 50 55 60

Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val Ser Tyr Asp Trp Leu  
 65 70 75 80

Ile Leu Gln Gly Pro Ala Lys Pro Val Phe Glu Gly Asp Leu Leu Val  
 85 90 95

Leu Arg Cys Gln Ala Trp Gln Asp Trp Pro Leu Thr Gln Val Thr Phe  
 100 105 110

Tyr Arg Asp Gly Ser Ala Leu Gly Pro Pro Gly Pro Asn Arg Glu Phe  
 115 120 125

Ser Ile Thr Val Val Gln Lys Ala Asp Ser Gly His Tyr His Cys Ser  
 130 135 140

Gly Ile Phe Gln Ser Pro Gly Pro Gly Ile Pro Glu Thr Ala Ser Val  
 145 150 155 160

Val Ala Ile Thr Val Gln Glu Leu Phe Pro Ala Pro Ile Leu Arg Ala  
 165 170 175

Val Pro Ser Ala Glu Pro Gln Ala Gly Gly Pro Met Thr Leu Ser Cys

[illegible]

```
<210> 134
<211> 5
<212> PRT
<213> Homo sapiens
```

<400> 134  
Met Ser Arg Leu Leu  
1 5

```
<210> 135
<211> 5
<212> PRT
<213> Homo sapiens
```

<400> 135  
Met Ser Arg Leu Leu  
1 5

<210> 136

<211> 63  
 <212> PRT  
 <213> Homo sapiens

<400> 136  
 Phe Leu His Val Phe Thr Ser Val Glu Leu Leu Arg Leu Ser Ser Pro  
           1                  5                  10                  15  
 Pro Leu Pro Lys Pro Lys Tyr Lys Arg Lys Ser Ser Pro Leu Leu Met  
                   20                  25                  30  
 Ala Glu Arg Ile Leu Ser Val Ser Gly Leu Phe Gly His Arg Leu Asn  
                   35                  40                  45  
 Lys Gly Leu Leu Ile His Pro Lys Lys Lys Lys Lys Lys Leu Glu  
           50                  55                  60

<210> 137  
 <211> 438  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (42)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 137  
 Leu Thr Ile Thr Val His Asp Pro Asn Ala Ala Gln Trp Tyr Tyr Gly  
           1                  5                  10                  15  
 Met Ser Trp Gly Leu Arg Leu Tyr Ile Pro Gly Phe Asp Val Gly Thr  
                   20                  25                  30  
 Met Phe Thr Ile Gln Lys Lys Ile Leu Xaa Ser Trp Ser Pro Pro Lys  
                   35                  40                  45  
 Pro Ile Arg Pro Leu Thr Asp Leu Gly Asp Pro Ile Phe Gln Lys His  
           50                  55                  60  
 Pro Asp Lys Val Asp Leu Thr Val Pro Gln Pro Phe Leu Val Pro Arg  
           65                  70                  75                  80  
 Pro Gln Leu Gln Gln Gln His Leu Gln Pro Ser Leu Met Ser Ile Leu  
                   85                  90                  95  
 Gly Gly Val His His Leu Leu Asn Leu Thr Gln Pro Lys Leu Ala Gln  
                   100                  105                  110  
 Asp Cys Trp Leu Cys Leu Lys Ala Lys Pro Pro Tyr Tyr Val Gly Leu  
           115                  120                  125  
 Gly Val Glu Ala Thr Leu Lys Arg Gly Pro Leu Ser Cys His Thr Arg  
           130                  135                  140  
 Pro Arg Ala Leu Thr Ile Gly Asp Val Ser Gly Asn Ala Ser Cys Leu  
           145                  150                  155                  160

Ile Ser Thr Gly Tyr Asn Leu Ser Ala Ser Pro Phe Gln Ala Thr Cys  
 165 170 175  
 Asn Gln Ser Leu Leu Thr Tyr Ile Ser Thr Ser Val Ser Tyr Gln Ala  
 180 185 190  
 Pro Asn Asn Thr Trp Leu Ala Cys Thr Ser Gly Leu Thr Arg Cys Ile  
 195 200 205  
 Asn Gly Thr Glu Pro Gly Pro Leu Leu Cys Val Leu Val His Val Leu  
 210 215 220  
 Pro Gln Val Tyr Val Tyr Ser Gly Pro Glu Gly Arg Gln Leu Ile Ala  
 225 230 235 240  
 Pro Pro Glu Leu His Pro Arg Leu His Gln Ala Val Pro Leu Leu Val  
 245 250 255  
 Pro Leu Leu Ala Gly Leu Ser Ile Ala Gly Ser Ala Ala Ile Gly Thr  
 260 265 270  
 Ala Ala Leu Val Gln Gly Glu Thr Gly Leu Ile Ser Leu Ser Gln Gln  
 275 280 285  
 Val Asp Ala Asp Phe Ser Asn Leu Gln Ser Ala Ile Asp Ile Leu His  
 290 295 300  
 Ser Gln Val Glu Ser Leu Ala Glu Val Val Leu Gln Asn Cys Arg Cys  
 305 310 315 320  
 Leu Asp Leu Leu Phe Leu Ser Gln Gly Gly Leu Cys Ala Ala Leu Gly  
 325 330 335  
 Glu Ser Cys Cys Phe Tyr Ala Asn Gln Ser Gly Val Ile Lys Gly Thr  
 340 345 350  
 Val Lys Lys Val Arg Glu Asn Leu Asp Arg His Gln Gln Glu Arg Glu  
 355 360 365  
 Asn Asn Ile Pro Trp Tyr Gln Ser Met Phe Asn Trp Asn Pro Trp Leu  
 370 375 380  
 Thr Thr Leu Ile Thr Gly Leu Ala Gly Pro Leu Leu Ile Leu Leu Leu  
 385 390 395 400  
 Ser Leu Ile Phe Gly Pro Cys Ile Leu Asn Ser Phe Leu Asn Phe Ile  
 405 410 415  
 Lys Gln Arg Ile Ala Ser Val Lys Leu Thr Tyr Leu Lys Thr Gln Tyr  
 420 425 430  
 Asp Thr Leu Val Asn Asn  
 435

&lt;210&gt; 138

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 138

Leu Thr Ile Thr Val His Asp Pro Asn Ala Ala Gln Trp Tyr Tyr Gly  
 1 5 10 15

Met Ser Trp Gly Leu Arg Leu Tyr Ile Pro Gly Phe Asp Val Gly Thr  
 20 25 30

Met Phe Thr Ile Gln Lys Lys Ile Leu Val Ser Trp Ser Pro Pro Lys  
 35 40 45

Pro Ile Arg Pro Leu Thr Asp Leu Gly Asp Pro Ile Phe Gln Lys His  
 50 55 60

Pro Asp Lys Val Asp Leu Thr Val Pro Gln Pro Phe Leu Val Pro Arg  
 65 70 75 80

Pro Gln Leu Gln Gln Gln His Leu Gln Pro Ser Leu Met Ser Ile Leu  
 85 90 95

Gly Gly Val His His Leu Leu Asn Leu Thr Gln Pro Lys Leu Ala Gln  
 100 105 110

Asp Cys Trp Leu Cys Leu Lys Ala Lys Pro Pro Tyr Tyr Val Gly Leu  
 115 120 125

Gly Val Glu Ala Thr Leu Lys Arg Gly Pro Leu Ser Cys His Thr Arg  
 130 135 140

Pro Arg Ala Leu Thr Ile Gly Asp Val Ser Gly Asn Ala Ser Cys Leu  
 145 150 155 160

Ile Ser Thr Gly Tyr Asn Leu Ser Ala Ser Pro Phe Gln Ala Thr Cys  
 165 170 175

Asn Gln Ser Leu Leu Thr Tyr Ile Ser Thr Ser Val Ser Tyr Gln Ala  
 180 185 190

Pro Asn Asn Thr Trp Leu Ala Cys Thr Ser Gly Leu Thr Arg Cys Ile  
 195 200 205

Asn Gly Thr Glu Pro Gly Pro Leu Leu Cys Val Leu Val His Val Leu  
 210 215 220

Pro Gln Val Tyr Val Tyr Ser Gly Pro Glu Gly Arg Gln Leu Ile Ala  
 225 230 235 240

Pro Pro Glu Leu His Pro Arg Leu His Gln Ala Val Pro Leu Leu Val  
 245 250 255

Pro Leu Leu Ala Gly Leu Ser Ile Ala Gly Ser Ala Ala Ile Gly Thr  
 260 265 270

Ala Ala Leu Val Gln Gly Glu Thr Gly Leu Ile Ser Leu Ser Gln Gln  
 275 280 285

Val Asp Ala Asp Phe Ser Asn Leu Gln Ser Ala Ile Asp Ile Leu His  
 290 295 300

Ser Gln Val Glu Ser Leu Ala Glu Val Val Leu Gln Asn Cys Arg Cys

305                      310                      315                      320  
 Leu Asp Leu Leu Phe Leu Ser Gln Gly Gly Leu Cys Ala Ala Leu Gly  
                                  325                      330                      335  
 Glu Ser Cys Cys Phe Tyr Ala Asn Gln Ser Gly Val Ile Lys Gly Thr  
                                  340                      345                      350  
 Val Lys Lys Val Arg Glu Asn Leu Asp Arg His Gln Gln Glu Arg Glu  
                                  355                      360                      365  
 Asn Asn Ile Pro Trp Tyr Gln Ser Met Phe Asn Trp Asn Pro Trp Leu  
                                  370                      375                      380  
 Thr Thr Leu Ile Thr Gly Leu Ala Gly Pro Leu Leu Ile Leu Leu Leu  
                                  385                      390                      395                      400  
 Ser Leu Ile Phe Gly Pro Cys Ile Leu Asn Ser Phe Leu Asn Phe Ile  
                                  405                      410                      415  
 Lys Gln Arg Ile Ala Ser Val Lys Leu Thr Tyr Leu Lys Thr Gln Tyr  
                                  420                      425                      430  
 Asp Thr Leu Val Asn Asn  
                                  435

<210> 139  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 139  
 Met Phe Cys Arg Asn Trp Arg Cys Glu Phe Met Met Leu Ser His Asn  
   1                                  5                                  10                                  15  
 Thr Ala Val Met Ile Cys Ser Phe Ser Gln Asn Asp Phe His Ala Ala  
                                   20                                  25                                  30  
 Leu Cys Cys Ser Ser Val Ser Glu Leu Pro Tyr Leu Phe Leu Val Cys  
                                   35                                  40                                  45  
 Ser Thr Tyr Lys Cys Ser Cys His Ala Val Leu Phe Phe Cys  
                                   50                                  55                                  60

<210> 140  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 140  
 Met Phe Cys Arg Asn Trp Arg Cys Glu Phe Met Met Leu Ser His Asn  
   1                                  5                                  10                                  15  
 Thr Ala Val Met Ile Cys Ser Phe Ser Gln Asn Asp Phe His Ala Ala  
                                   20                                  25                                  30

Leu Cys Cys Ser Ser Val Ser Glu Leu Pro Tyr Leu Phe Leu Val Cys  
                   35                                  40                                  45

Ser Thr Tyr Lys Cys Ser Cys His Ala Val Leu Phe Phe Cys  
           50                                  55                                  60

<210> 141

<211> 76

<212> PRT

<213> Homo sapiens

<400> 141

Ile Asn Phe Thr Tyr Lys Arg Leu Ser Leu Asp Phe Ile Tyr Ile Tyr  
       1                                  5                                  10                                  15

Met Cys Val Cys Val Cys Val Cys Val Cys Val Cys Val Cys Val Tyr  
                   20                                  25                                  30

Leu Lys Arg Thr Cys Ala Ser Ile Lys Gly Asn Lys Met Arg Glu Tyr  
                   35                                  40                                  45

Ile Ile Asp Phe Val Lys Ser Lys Tyr Leu Asn Tyr Gly Phe Ser Ile  
           50                                  55                                  60

Phe Lys Asn Ser Cys Ser Phe Cys Thr Tyr Phe Phe  
       65                                  70                                  75

<210> 142

<211> 42

<212> PRT

<213> Homo sapiens

<400> 142

Met Phe Leu Phe Ile Thr Phe Thr Ile Leu Ala Ile Phe Ile Ile Glu  
       1                                  5                                  10                                  15

Pro Arg Asn Leu Arg Val Asp Leu Asn Leu Ile Lys Phe Gln Thr Ser  
                   20                                  25                                  30

Trp Pro Lys Thr Leu Val Glu Glu Gln Asn  
           35                                  40

<210> 143

<211> 42

<212> PRT

<213> Homo sapiens

<400> 143

Met Phe Leu Phe Ile Thr Phe Thr Ile Leu Ala Ile Phe Ile Ile Glu  
       1                                  5                                  10                                  15

Pro Arg Asn Leu Arg Val Asp Leu Asn Leu Ile Lys Phe Gln Thr Ser  
                   20                                  25                                  30



Trp Pro Lys Thr Leu Val Glu Glu Gln Asn  
           35                          40

<210> 144  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 144  
 Ala Trp Ile Gln Cys Thr Leu Leu Leu Tyr Pro Arg Arg Thr Ser Gln  
   1                          5                          10                          15

Gly Ile His Gln Val Pro Gly  
                           20

<210> 145  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 145  
 Leu Leu Met Arg Gln Pro Trp Val Gly Gln Gly Trp Gly Pro Val Val  
   1                          5                          10                          15

Glu Glu Thr Cys  
                           20

<210> 146  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (131)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (185)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (218)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (220)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

&lt;222&gt; (250)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (312)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 146

Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu Leu  
 1 5 10 15

Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro Gln Ile  
 20 25 30

Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn Glu Arg His  
 35 40 45

Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr Pro Arg Leu Ala  
 50 55 60

Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser Thr Ser Arg Leu Leu  
 65 70 75 80

Ser Val Gly Gly Glu Ala Phe Ser Gly Gly Thr Ser Thr Phe Thr Val  
 85 90 95

Thr Ala His Arg Ala Gln His Glu Leu Asn Cys Ser Leu Gln Asp Pro  
 100 105 110

Arg Ser Gly Arg Ser Ala Asn Ala Ser Val Ile Leu Asn Val Gln Phe  
 115 120 125

Lys Pro Xaa Ile Ala Gln Val Gly Ala Lys Tyr Gln Glu Ala Gln Gly  
 130 135 140

Pro Gly Leu Leu Val Val Leu Phe Ala Leu Val Arg Ala Asn Pro Pro  
 145 150 155 160

Ala Asn Val Thr Trp Ile Asp Gln Asp Gly Pro Val Thr Val Asn Thr  
 165 170 175

Ser Asp Phe Leu Val Leu Asp Ala Xaa Asn Tyr Pro Trp Leu Thr Asn  
 180 185 190

His Thr Val Gln Leu Gln Leu Arg Ser Leu Ala His Asn Leu Ser Val  
 195 200 205

Val Ala Thr Asn Asp Val Gly Val Thr Xaa Ala Xaa Leu Pro Ala Pro  
 210 215 220

Gly Pro Ser Arg His Pro Ser Leu Ile Ser Ser Asp Ser Asn Asn Leu  
 225 230 235 240

Lys Leu Asn Asn Val Arg Leu Pro Arg Xaa Asn Met Ser Leu Pro Ser  
 245 250 255

Asn Leu Gln Leu Asn Asp Leu Thr Pro Asp Ser Arg Ala Val Lys Pro  
 260 265 270

Ala Asp Arg Gln Met Ala Gln Asn Asn Ser Arg Pro Glu Leu Leu Asp  
 275 280 285

Pro Glu Pro Gly Gly Leu Leu Thr Ser Gln Gly Phe Ile Arg Leu Pro  
 290 295 300

Val Leu Gly Tyr Ile Tyr Arg Xaa Ser Ser Val Ser Ser Asp Glu Ile  
 305 310 315 320

Trp Leu

<210> 147  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

<400> 147  
 Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu Leu  
 1 5 10 15

Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro Gln Ile  
 20 25 30

Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn Glu Arg His  
 35 40 45

Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr Pro Arg Leu Ala  
 50 55 60

Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser Thr Ser Arg Leu Leu  
 65 70 75 80

Ser Val Gly Gly Glu Ala Phe Ser Gly Gly Thr Ser Thr Phe Thr Val  
 85 90 95

Thr Ala His Arg Ala Gln His Glu Leu Asn Cys Ser Leu Gln Asp Pro  
 100 105 110

Arg Ser Gly Arg Ser Ala Asn Ala Ser Val Ile Leu Asn Val Gln Phe  
 115 120 125

Lys Pro Glu Ile Ala Gln Val Gly Ala Lys Tyr Gln Glu Ala Gln Gly  
 130 135 140

Pro Gly Leu Leu Val Val Leu Phe Ala Leu Val Arg Ala Asn Pro Pro  
 145 150 155 160

Ala Asn Val Thr Trp Ile Asp Gln Asp Gly Pro Val Thr Val Asn Thr  
 165 170 175

Ser Asp Phe Leu Val Leu Asp Ala Gln Asn Tyr Pro Trp Leu Thr Asn  
 180 185 190

His Thr Val Gln Leu Gln Leu Arg Ser Leu Ala His Asn Leu Ser Val  
 195 200 205

Val Ala Thr Asn Asp Val Gly Val Thr Ser Ala Ser Leu Pro Ala Pro

210	215	220
Gly Pro Ser Arg His	Pro Ser Leu Ile Ser	Ser Asp Ser Asn Asn Leu
225	230	235 240
Lys Leu Asn Asn Val Arg Leu Pro Arg	Glu Asn Met Ser Leu Pro Ser	
245	250	255
Asn Leu Gln Leu Asn Asp Leu Thr Pro Asp Ser Arg Ala Val Lys Pro		
260	265	270
Ala Asp Arg Gln Met Ala Gln Asn Asn Ser Arg Pro Glu Leu Leu Asp		
275	280	285
Pro Glu Pro Gly Gly Leu Leu Thr Ser Gln Gly Phe Ile Arg Leu Pro		
290	295	300
Val Leu Gly Tyr Ile Tyr Arg Val Ser Ser Val Ser Ser Asp Glu Ile		
305	310	315 320
Trp Leu		

<210> 148  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 148  
 Met Ile Ser Leu Leu Trp Thr Leu Lys Leu Phe Ser Arg Asn Leu Asp  
 1 5 10 15  
 Tyr Ser Gln Lys Arg Lys Ser Trp Cys  
 20 25

<210> 149  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<400> 149  
 Met Ile Ser Leu Leu Trp Thr Leu Lys Leu Phe Ser Arg Asn Leu Asp  
 1 5 10 15  
 Tyr Ser Gln Lys Arg Lys Ser Trp Cys  
 20 25

<210> 150  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 150  
 Thr Lys Ser Ser Asp Phe Gly Gly Gly Cys Arg Asn Ala Ser Ser Ser

1

5

10

15

Cys Cys

&lt;210&gt; 151

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 151

Gly Cys Phe Lys Ile Val Leu Phe Phe Lys Leu Val Ile Phe Ala Lys  
 1 5 10 15

Leu Phe Val Phe Val Val Ser Ile Asn Met  
 20 25

&lt;210&gt; 152

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 152

Thr Lys Ser Ser Asp Phe Gly Gly Gly Cys Arg Asn Ala Ser Ser Ser  
 1 5 10 15

Cys Cys

&lt;210&gt; 153

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 153

Met Val Cys Gly Trp Ile Ile Tyr Gly Ser Phe Ile Tyr Leu Ser Ser  
 1 5 10 15

His Cys Ala Thr Thr Phe Lys Glu Asp Gly Leu Trp Thr Tyr Leu Asn  
 20 25 30

Gln Ile Val Ala Cys Ser Pro Trp Val Leu Tyr Ile Leu Met Leu Ala  
 35 40 45

Thr Phe His Phe Ser Trp Ser Thr Phe Leu Leu Leu Asn Gln Leu Phe  
 50 55 60

Gln Ile Ala Phe Leu Gly Leu Thr Ser His Glu Arg Ile Ser Leu Gln  
 65 70 75 80

Lys Gln Ser Lys His Met Lys Gln Thr Leu Ser Leu Arg Lys Thr Pro  
 85 90 95

Tyr Asn Leu Gly Phe Met Gln Asn Leu Ala Asp Phe Phe Gln Cys Gly

	100		105		110
Cys Phe Gly Leu Val Lys Pro Cys Val Val Asp Trp Thr Ser Gln Tyr					
115		120		125	
Thr Met Val Phe His Pro Ala Arg Glu Lys Val Leu Arg Ser Val					
130		135		140	

&lt;210&gt; 154

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 154

Trp Glu Ser Leu Gly Leu Met Phe Leu Cys Gly Pro His Leu Thr Arg
1 5 10 15

Leu Leu Leu Phe Leu Phe Thr Leu Gly Phe Cys Ala Phe Ile Asn Ile
20 25 30

Val Leu Ser Phe Pro Leu Val Cys Ile Pro Phe Cys Leu Gly Arg Leu
35 40 45

Tyr Phe Leu Leu Leu Thr Glu Lys Pro His Gln Glu Ala Cys Pro Gly
50 55 60

Asp Glu Leu Gly Thr Gly His Leu His Ile Gly Leu Gly Ala Val Arg
65 70 75 80

Leu Gln Gly Pro Asp Asn Met Arg Asn Glu Xaa Ser Xaa Ile Val Val
85 90 95

Gly Asp Xaa Gly Leu
100

&lt;210&gt; 155

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 155

Met Leu Asn Asp Gly Lys Val Trp Val Ser Cys Phe Cys Val Val Leu  
 1 5 10 15

Thr Ser Leu Asp Phe Cys Ser Phe Cys Ser Leu Trp Ala Ser Val Leu  
 20 25 30

Ser Leu Ile  
 35

<210> 156

<211> 114

<212> PRT

<213> Homo sapiens

<400> 156

Gly Pro Arg Arg Leu Ser Gly Thr His Ser Arg Gly Ser Ser Pro Asp  
 1 5 10 15

Pro Cys Ser Cys Val Val Trp Ala Ser Ala Asn Ser Trp Ala Thr Cys  
 20 25 30

Val Tyr Leu Glu Pro Gly Ser Pro Leu Ser Ser Phe Pro Cys Ala Tyr  
 35 40 45

Ser Gly Thr Cys Leu Val Arg Val Trp Gln Glu Asn Gly Ala Phe Asn  
 50 55 60

Asn Leu Pro Ser Phe Ile Pro Trp Ser Leu Leu His Ala Arg Thr Cys  
 65 70 75 80

Ala His Leu Phe Gly Ala Leu Ser His Leu Ile Asp Ser Arg Pro Gly  
 85 90 95

Ala Val Leu Thr Pro Val Ile Pro Ala Leu Trp Glu Asp Glu Ala Gly  
 100 105 110

Gly Ser

<210> 157

<211> 26

<212> PRT

<213> Homo sapiens

<400> 157

Met Cys Val Ser Pro Val Ser Val Cys Pro Phe Leu Pro Ser Leu His  
 1 5 10 15

Phe Ile Asn Asn Trp Cys Asn Val Ser Ser  
 20 25

<210> 158

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 158

Gly Ser Asp Gly Pro Arg Glu Arg Ala Pro Val Ala Trp Leu Ser His  
1 5 10 15

Ser Ile Leu Ser Leu Ile Leu Asn Lys Tyr Phe Leu Trp Gly Phe Phe  
20 25 30

Phe Phe Leu Xaa Ala Val Val Cys Phe Lys Leu Thr Thr Trp Lys Lys  
35 40 45

His Leu Gly Tyr Leu Trp Phe Ser Cys Leu Val Pro Ala Ser Thr Pro  
50 55 60

Thr Pro Phe Glu Ser Gly Asp Ser Phe Phe Cys Val Glu Thr Arg Trp  
65 70 75 80

Pro Arg Gln Glu Val Lys Ala Ala Ile Arg Lys Ala Leu Gly Thr Leu  
85 90 95

Val Pro Val Ala Arg Leu Gln Val Thr Ser  
100 105

<210> 159

<211> 201

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 159

Leu Ser Ser Leu Leu Pro Gln Arg Leu Xaa Glu Pro Ser Ser Ser Ser  
1 5 10 15

Pro Gly Xaa Arg Thr Trp Gln Leu Ser Gln Lys Ser Arg Gly Pro Ser  
20 25 30

Arg Ala Ser Ser Met Ser Val Leu Asn Ser Leu Arg Ser Ser Ser Trp  
35 40 45

Trp Pro Arg Leu His Thr His Thr Ser Met Pro Glu Ser Pro Val Lys  
50 55 60

Arg Arg Cys Leu Pro Gly Val Phe Ser Leu Leu Ser Gly Ala Pro Cys



65					70					75					80
Ser	Glu	Leu	Ser	Ser	Phe	Ser	Ser	Ser	Ser	Leu	His	Ser	Ala	Ser	Leu
				85					90					95	
Ser	Arg	Lys	Ala	Pro	Gly	Ser	Ser	Ser	Pro	Arg	Pro	Ala	Thr	Glu	Pro
			100					105					110		
Leu	Gly	Ser	Ile	Pro	Gly	Ala	Leu	Val	Ala	Ala	Arg	Ser	Thr	Gly	Arg
		115					120					125			
Ser	Glu	Gly	Ser	Gly	Ser	Ala	Met	Leu	Gly	Gly	Leu	Val	Leu	Leu	Leu
		130				135					140				
Leu	Gly	Ser	Asp	Lys	Gly	Leu	Leu	Cys	Ala	Pro	Trp	Asp	Pro	Leu	Val
145					150					155					160
Gly	Ser	Met	Pro	Gly	Gly	Leu	Pro	Pro	Ala	Gly	Pro	His	Cys	Gly	Gly
				165					170					175	
Ser	Ser	Cys	Cys	Cys	Cys	Ser	Trp	Lys	Ala	Leu	Tyr	Gly	Gly	Gly	Gly
			180					185					190		
Val	Gly	Gly	Arg	Phe	Thr	Thr	Ser	Ser							
		195					200								

```
<210> 160
<211> 52
<212> PRT
<213> Homo. sapiens
```

```

<400> 160
Met Ala Leu Leu Leu Leu Gln Ala Leu Pro Ser Pro Leu Ser Ala Arg
  1             5             10             15
Ala Glu Pro Pro Gln Asp Lys Glu Ala Cys Val Gly Thr Asn Asn Gln
      20             25             30
Ser Tyr Ile Cys Asp Thr Gly His Cys Cys Gly Gln Ser Gln Cys Cys
      35             40             45
Lys Leu Leu Leu
      50

```

```
<210> 161
<211> 118
<212> PRT
<213> Homo sapiens
```

```

<400> 161
Leu Leu Leu Leu Gln Ala Leu Pro Ser Pro Leu Ser Ala Arg Ala Glu
 1      5      10      15
Pro Pro Gln Asp Lys Glu Ala Cys Val Gly Thr Asn Asn Gln Ser Tyr
      20      25      30

```

Ile Cys Asp Thr Gly His Cys Cys Gly Gln Ser Gln Cys Cys Asn Tyr  
35 40 45

Tyr Tyr Glu Leu Trp Trp Phe Trp Leu Val Trp Thr Ile Ile Ile Ile  
50 55 60

Leu Ser Cys Cys Cys Val Cys His His Arg Arg Ala Lys His Arg Leu  
65 70 75 80

Gln Ala Gln Gln Arg Gln His Glu Ile Asn Leu Ile Ala Tyr Arg Glu  
85 90 95

Ala His Asn Tyr Ser Ala Leu Pro Phe Tyr Phe Arg Phe Leu Pro Asn  
100 105 110

Tyr Leu Leu Pro Pro Leu  
115

<210> 162

<211> 363

<212> PRT

<213> Homo sapiens

<400> 162

Met Glu Arg Arg Arg Leu Leu Gly Gly Met Ala Leu Leu Leu Leu Gln  
1 5 10 15

Ala Leu Pro Ser Pro Leu Ser Ala Arg Ala Glu Pro Pro Gln Asp Lys  
20 25 30

Glu Ala Cys Val Gly Thr Asn Asn Gln Ser Tyr Ile Cys Asp Thr Gly  
35 40 45

His Cys Cys Gly Gln Ser Gln Cys Cys Asn Tyr Tyr Tyr Glu Leu Trp  
50 55 60

Trp Phe Trp Leu Val Trp Thr Ile Ile Ile Ile Leu Ser Cys Cys Cys  
65 70 75 80

Val Cys His His Arg Arg Ala Lys His Arg Leu Gln Ala Gln Gln Arg  
85 90 95

Gln His Glu Ile Asn Leu Ile Ala Tyr Arg Glu Ala His Asn Tyr Ser  
100 105 110

Ala Leu Pro Phe Tyr Phe Arg Phe Leu Pro Asn Tyr Leu Leu Pro Pro  
115 120 125

Tyr Glu Glu Val Val Asn Arg Pro Pro Thr Pro Pro Pro Tyr Ser  
130 135 140

Ala Phe Gln Leu Gln Gln Gln Gln Leu Leu Pro Pro Gln Cys Gly Pro  
145 150 155 160

Ala Gly Gly Ser Pro Pro Gly Ile Asp Pro Thr Arg Gly Ser Gln Gly  
165 170 175

Ala Gln Ser Ser Pro Leu Ser Glu Pro Ser Arg Ser Ser Thr Arg Pro

180										185										190									
Pro	Ser	Ile	Ala	Asp	Pro	Asp	Pro	Ser	Asp	Leu	Pro	Val	Asp	Arg	Ala														
		195					200					205																	
Ala	Thr	Lys	Ala	Pro	Gly	Met	Glu	Pro	Ser	Gly	Ser	Val	Ala	Gly	Leu														
	210					215					220																		
Gly	Glu	Leu	Asp	Pro	Gly	Ala	Phe	Leu	Asp	Lys	Asp	Ala	Glu	Cys	Arg														
	225				230					235					240														
Glu	Glu	Leu	Leu	Lys	Asp	Asp	Ser	Ser	Glu	His	Gly	Ala	Pro	Asp	Ser														
				245					250					255															
Lys	Glu	Lys	Thr	Pro	Gly	Arg	His	Arg	Arg	Phe	Thr	Gly	Asp	Ser	Gly														
			260					265					270																
Ile	Glu	Val	Cys	Val	Cys	Asn	Arg	Gly	His	His	Asp	Asp	Asp	Leu	Lys														
		275					280						285																
Glu	Val	Asn	Thr	Leu	Ile	Asp	Asp	Ala	Leu	Asp	Gly	Pro	Leu	Asp	Phe														
		290				295					300																		
Cys	Asp	Ser	Cys	His	Val	Arg	Pro	Pro	Gly	Asp	Glu	Glu	Glu	Gly	Leu														
	305				310					315					320														
Cys	Gln	Pro	Ser	Glu	Glu	Gln	Ala	Arg	Glu	Pro	Gly	His	Pro	His	Leu														
				325					330					335															
Pro	Arg	Pro	Pro	Ala	Cys	Leu	Leu	Leu	Asn	Thr	Ile	Asn	Glu	Gln	Asp														
			340					345					350																
Ser	Pro	Asn	Ser	Gln	Ser	Asn	Ser	Ser	Pro	Ser																			
		355					360																						

&lt;210&gt; 163

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (51)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 163

Gln Xaa Lys Pro Pro Xaa Pro Ala Ala Pro Ala Ala Pro Xaa Ala Pro  
1 5 10 15

Ala Pro Leu Glu Lys Pro Ile Arg Ser His Glu Ala Thr Gly Gly Gly  
20 25 30

Glu Xaa Ala Cys Gly Val Thr Gly Ala Ser Thr Pro Glu Gly Thr Ala  
35 40 45

Pro Pro Xaa Pro Ala Ala Pro Ala Pro Pro Lys Gly Glu Lys Glu Gly  
50 55 60

Gln Arg Pro Thr Gln Pro Val Tyr Gln Ile Gln Asn Arg Gly Met Gly  
65 70 75 80

Thr Ala Ala Pro Ala Ala Met Asp Arg Glu Leu Gly Leu Gly Ser Thr  
85 90 95

Arg Leu Gly Thr Gly Val Ser Ser Gln Ile Leu Thr Ala Ser Ser Val  
100 105 110

Ser Cys Phe Leu Gln Ser Pro Ala Val Val Gly Gln Ala Lys Leu Leu  
115 120 125

Pro Pro Glu Arg Met Lys His Ser Ile Lys Leu Val Asp Asp Gln Met  
130 135 140

Asn Trp Cys Asp Ser Ala Ile Glu Val Pro Arg Gly Pro Ala Leu Pro  
145 150 155 160

Glu Leu Pro His Ile Leu His Pro Leu Ile Phe His Leu Ser Val Gly  
165 170 175

Asn Thr Arg Leu Glu Gly Phe Glu Ala Thr Tyr Ser Ser Glu Arg Gly  
180 185 190

Trp Tyr Gln Asn Ile Leu Thr  
195

<210> 164

<211> 21

<212> PRT

<213> Homo sapiens

<400> 164

Met Lys Asn Ser Phe Phe Thr Val Ser Trp Ala Leu Thr Cys Ser Phe  
1 5 10 15

Ser Trp Ala Thr Val  
20

<210> 165  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 165  
 Met Lys Asn Ser Phe Phe Thr Val Ser Trp Ala Leu Thr Cys Ser Phe  
           1                  5                  10                  15  
 Ser Trp Ala Thr Val  
                           20

<210> 166  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 166  
 Met Pro Leu Phe Arg Thr Phe Lys Gln Leu Gly Leu Phe Leu Phe Leu  
           1                  5                  10                  15  
 Ile Ile Pro Ile Ile Cys Ser Ser Leu Pro Pro Leu Gly Pro Val Gln  
                   20                  25                  30  
 Ser Phe Leu Gly Cys Leu Tyr  
                   35

<210> 167  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 167  
 Met Leu Leu Leu Val Val Thr Leu Val Asn Leu Ser Ile Tyr Lys Leu  
           1                  5                  10                  15  
 Ile Lys Leu Val Thr Ala Leu Ser Lys Lys Leu Gly Ala Lys Gly Val  
                   20                  25                  30  
 Leu Lys Asn Ala His Phe Met Arg Cys Asn Cys Gly Glu Met Arg Thr  
           35                  40                  45  
 Arg Ser  
           50

<210> 168  
 <211> 2  
 <212> PRT  
 <213> Homo sapiens

<400> 168

Leu Leu  
1

<210> 169  
<211> 69  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 169  
Trp Tyr Gln Gly Lys Xaa Asp Leu Lys Gly Leu Gly Xaa Val Leu Asp  
1 5 10 15

Gly Ser Asp Gly Met Ala Gly Gly Ile Pro Glu Gly Met Ala Phe Thr  
20 25 30

Leu Tyr Leu Gly Ile Trp Leu Ser Ser Pro Phe Pro Asp Cys Cys Ile  
35 40 45

Ala Phe Xaa Phe Ala Tyr Ser Ser Ser Pro Leu Ser Ser Gly Asp Thr  
50 55 60

Phe Gln Gly Pro Gln  
65

<210> 170  
<211> 135  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (129)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 170  
Ala Lys Met Pro Trp Thr Cys Ser Val Ser Asp Pro Thr Ser Cys Asp

1                      5                      10                      15  
 Ser Gln Ala Gln Lys Met Pro Gly Val Arg Ala Ser Arg Gln Pro Gly  
                     20                      25                      30  
 Xaa Gly Arg Gln Cys Leu Leu Leu Leu His Gln Val Gln Gly Ile Trp  
                     35                      40                      45  
 Leu Lys Ala Cys Ile Phe Pro Gly His Lys Leu Pro Glu Pro Leu Lys  
                     50                      55                      60  
 Trp Glu Ala Arg Gln Phe Gln Thr Asn Leu Phe Ser Thr His His Ser  
                     65                      70                      75                      80  
 Thr Phe Lys Val Cys Leu Leu Leu Leu Pro Val His Pro Pro Ser Leu  
                     85                      90                      95  
 Gln Phe Phe His Ser Leu Thr Ser Glu Arg Val Pro Gly Gly Ser Met  
                     100                      105                      110  
 Val Asn Lys Leu Thr Cys Met Leu Gln Lys Lys Lys Lys Lys Ile  
                     115                      120                      125  
 Xaa Ala Val Arg Lys Gly Ile  
                     130                      135

<210> 171  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 171  
 Met Leu Leu Leu Val Val Thr Leu Val Asn Leu Ser Ile Tyr Lys Leu  
                     1                      5                      10                      15  
 Ile Lys Leu Val Thr Ala Leu Ser Lys Lys Leu Gly Ala Lys Gly Val  
                     20                      25                      30  
 Leu Lys Asn Ala His Phe Met Arg Cys Asn Cys Gly Glu Met Arg Thr  
                     35                      40                      45  
 Arg Ser  
                     50

<210> 172  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

<400> 172  
 Met Ala Thr Thr Gly Thr Lys Pro Thr Ser Cys Trp Cys Trp Phe Leu  
                     1                      5                      10                      15  
 Leu Ala Met Cys Trp Phe Val Gln Leu Arg Thr Glu Trp Glu Arg Ala  
                     20                      25                      30

Phe Leu Phe Val Pro Ile Ala Arg Glu Pro Gly Arg Leu Cys Arg Phe  
 35 40 45

Ser Gly Asn Lys Gln Leu Asn Gly Leu Ala Val Ala Leu Gln Ala Phe  
 50 55 60

Arg Phe Ala Lys Asn Lys Thr Ser Gln Lys Arg Cys Ala  
 65 70 75

<210> 173

<211> 77

<212> PRT

<213> Homo sapiens

<400> 173

Met Ala Thr Thr Gly Thr Lys Pro Thr Ser Cys Trp Cys Trp Phe Leu  
 1 5 10 15

Leu Ala Met Cys Trp Phe Val Gln Leu Arg Thr Glu Trp Glu Arg Ala  
 20 25 30

Phe Leu Phe Val Pro Ile Ala Arg Glu Pro Gly Arg Leu Cys Arg Phe  
 35 40 45

Ser Gly Asn Lys Gln Leu Asn Gly Leu Ala Val Ala Leu Gln Ala Phe  
 50 55 60

Arg Phe Ala Lys Asn Lys Thr Ser Gln Lys Arg Cys Ala  
 65 70 75

<210> 174

<211> 56

<212> PRT

<213> Homo sapiens

<400> 174

Cys Asp Val Lys Pro Ala Asp Val Lys Asp Ile Gly Gly Thr Val Glu  
 1 5 10 15

Ala Ser Cys Met Asn Phe Ser Trp Pro Ala Pro Thr Ala Gln Val His  
 20 25 30

Thr Arg Lys Arg Arg Val Trp Ala Cys Leu Arg Val Asp Val Ser Ser  
 35 40 45

Glu Val Arg Pro Gly Lys Ala Leu  
 50 55

<210> 175

<211> 68

<212> PRT

<213> Homo sapiens

<220>



```
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```

<400> 175
Met Ala Gln Ser Arg Val Leu Leu Leu Leu Leu Leu Leu Pro Pro Gln
  1                      5                      10                      15

Leu Ala Pro Gly Thr Cys Ala Cys Arg Glu Gly Pro Arg Ile Trp Pro
                20                      25                      30

Asn Gly Gly His Ser Leu Ser Pro Glu Glu Asn Xaa Leu Arg Lys Lys
    35                      40                      45

Ser Arg Leu Leu Leu Ile Glu Ala Xaa Lys Lys Pro Gly Ala Trp Ala
    50                      55                      60

Gln Ala Ala Val
  65

```

```
<210> 176
<211> 85
<212> PRT
<213> Homo sapiens
```

```

<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids

```

```
<400> 176
Met Ala Gln Ser Arg Val Leu Leu Leu Leu Leu Leu Pro Pro Gln
   1                               10                      15
Leu His Leu Gly Pro Val Leu Ala Val Xaa Ala Pro Gly Phe Gly Arg
      20                                25                     30
Ser Gly Gly His Ser Leu Ser Pro Glu Glu Asn Glu Phe Ala Glu Glu
    35                              40                       45
Glu Pro Val Leu Val Leu Ser Pro Glu Glu Pro Gly Pro Gly Pro Ala
   50                                55                        60
Ala Val Ser Cys Pro Arg Asp Cys Ala Cys Ser Gln Glu Gly Val Val
   65                               70                          75                   80
Asp Cys Gly Gly Tyr
          85
```

<210> 177  
<211> 14

<212> PRT  
 <213> Homo sapiens

<400> 177  
 Met Ile Tyr Gln Ile Tyr Gly Ile Ile Cys Ser Leu Phe Pro  
 1 5 10

<210> 178  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 178  
 Gly Pro Phe Cys Asp Val Thr Thr Leu His Leu Pro Gly Leu Leu Cys  
 1 5 10 15  
 Thr Gln Cys Ser Leu Asp Pro Val Asp Leu Tyr Leu Trp Arg Ser  
 20 25 30

<210> 179  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 179  
 Met Ile Tyr Gln Ile Tyr Gly Ile Ile Cys Ser Leu Phe Pro  
 1 5 10

<210> 180  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (71)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 180  
 Thr Met Gly Pro Gly Asp Arg His Arg Leu Pro Val Tyr Leu Gly His  
 1 5 10 15  
 Cys Leu Gly Cys Leu Glu Ser Gly Leu Leu Ala Gln Ile Leu Pro Leu  
 20 25 30  
 Leu Gly Gln Gly Arg Pro Phe Met Asp Ser Leu Ile Arg Val Ala Ala  
 35 40 45  
 Glu Arg Arg Ala Gly Gln Val Leu Lys Gly Thr Leu Lys Arg Phe Ser  
 50 55 60  
 Glu Arg Gln Gly Arg Arg Xaa  
 65 70

<210> 181  
 <211> 204  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 181  
 Xaa Pro Ser Leu Xaa Gly Thr Xaa Ala Gly Gly Ser Thr Ala Val Ala  
           1                  5                  10                  15

Ala Ala Leu Glu Leu Val Asp Pro Pro Gly Cys Arg Asn Ser Ala Arg  
                   20                  25                  30

Ala Ala Ala Glu Leu Ser Leu Leu Glu Lys Ser Leu Gly Leu Ser Lys  
           35                  40                  45

Gly Asn Lys Tyr Ser Ala Gln Gly Glu Arg Gln Ile Pro Val Leu Gln  
           50                  55                  60

Thr Asn Asn Gly Pro Ser Leu Thr Gly Leu Thr Thr Ile Ala Ala His  
           65                  70                  75                  80

Leu Val Lys Gln Ala Asn Lys Glu Tyr Leu Leu Gly Ser Thr Ala Glu  
                   85                  90                  95

Glu Lys Ala Ile Val Gln Gln Trp Leu Glu Tyr Arg Val Thr Gln Val  
           100                  105                  110

Asp Gly His Ser Ser Lys Asn Asp Ile His Thr Leu Leu Lys Asp Leu  
           115                  120                  125

Asn Ser Tyr Leu Glu Asp Lys Val Tyr Leu Thr Gly Tyr Asn Phe Thr  
           130                  135                  140

Leu Ala Asp Ile Leu Leu Tyr Tyr Gly Leu His Arg Phe Ile Val Asp  
           145                  150                  155                  160

Leu Thr Val Gln Glu Lys Glu Lys Tyr Leu Asn Val Ser Arg Trp Phe  
           165                  170                  175

Cys His Ile Gln His Tyr Pro Gly Ile Arg Gln His Leu Ser Ser Val  
           180                  185                  190

Val Phe Ile Lys Asn Arg Leu Tyr Thr Asn Ser His

195

200

<210> 182  
<211> 54  
<212> PRT  
<213> Homo sapiens

<400> 182  
Met Thr Ser Pro Leu Ala Arg Leu Leu Leu Pro Phe Trp Cys His Thr  
1 5 10 15  
Leu Gly Thr Met Ala Leu Gly Thr Pro Asn Pro Gly Ala Met Ala Trp  
20 25 30  
Gly Ala Val Gly Glu Pro Asn Pro Gly Ala Trp Thr Val Pro Leu Gly  
35 40 45  
Ala Phe Leu Ala Gly Arg  
50

<210> 183  
<211> 54  
<212> PRT  
<213> Homo sapiens

<400> 183  
Met Thr Ser Pro Leu Ala Arg Leu Leu Leu Pro Phe Trp Cys His Thr  
1 5 10 15  
Leu Gly Thr Met Ala Leu Gly Thr Pro Asn Pro Gly Ala Met Ala Trp  
20 25 30  
Gly Ala Val Gly Glu Pro Asn Pro Gly Ala Trp Thr Val Pro Leu Gly  
35 40 45  
Ala Phe Leu Ala Gly Arg  
50

<210> 184  
<211> 1  
<212> PRT  
<213> Homo sapiens

<400> 184  
Ser  
1

<210> 185  
<211> 3  
<212> PRT  
<213> Homo sapiens

<400> 185  
 Leu Leu Cys  
 1

<210> 186  
 <211> 1  
 <212> PRT  
 <213> Homo sapiens

<400> 186  
 Ser  
 1

<210> 187  
 <211> 5  
 <212> PRT  
 <213> Homo sapiens

<400> 187  
 Ala Gly Thr Trp Ser  
 1 5

<210> 188  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 188  
 Met Ala Gly Val Trp Asn Thr Ile Ala Leu Trp Phe Leu Ser Val Phe  
 1 5 10 15

Gly Val Ile Ser Ala Pro Thr Thr Gly Thr Ser Pro Thr Ser Cys Arg  
 20 25 30

Cys Val Gly Pro Arg Pro Pro Gly Cys Gly Pro Ala Gly  
 35 40 45

<210> 189  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (21)  
 <223> Xaa equals any of the naturally occurring L-amino acids.

<400> 189  
 Leu Ile Asn Val Thr Asn Val Gly Ile Ile Leu Ala Val Ser Gln Pro  
 1 5 10 15

Leu Asp Asp Ile Xaa Glu Phe Ile Ile Glu Lys Arg Ser Asp Tyr Asn

20

25

30

Lys Tyr Arg Lys Glu Asn Met Trp Leu Pro Leu Asn Pro Tyr  
 35 40 45

&lt;210&gt; 190

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (187)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 190

Met Leu Gln Phe Gln Arg Thr Trp Lys Tyr Lys Gly Glu Phe Xaa Leu  
 1 5 10 15

His Gln Gly Asn Ala Glu Arg His Phe Met Gln Val Thr Xaa Val Xaa  
 20 25 30

Glu Ile Ser Thr Gly Lys Arg Asp Asn Glu Phe Ser Asn Ser Gly Arg  
 35 40 45

Ser Ile Pro Leu Lys Ser Val Phe Leu Thr Gln Gln Lys Val Pro Thr  
 50 55 60

Ile Gln Gln Val His Lys Phe Asp Ile Tyr Asp Lys Leu Phe Pro Gln  
 65 70 75 80

Asn Ser Val Ile Ile Glu Tyr Lys Arg Leu His Ala Glu Lys Glu Ser  
 85 90 95

Leu Ile Gly Asn Glu Cys Glu Glu Phe Asn Gln Ser Thr Tyr Leu Ser  
 100 105 110

Lys Asp Ile Gly Ile Pro Pro Gly Glu Lys Pro Tyr Glu Ser His Asp  
 115 120 125

Phe Ser Lys Leu Leu Ser Phe His Ser Leu Phe Thr Gln His Gln Thr  
 130 135 140

Thr His Phe Gly Lys Leu Pro His Gly Tyr Asp Glu Cys Gly Asp Ala  
 145 150 155 160  
 Phe Ser Cys Tyr Ser Phe Phe Thr Gln Pro Gln Arg Ile His Ser Gly  
 165 170 175  
 Glu Lys Pro Tyr Ala Cys Asn Asp Cys Gly Xaa Ala Phe Ser Pro Thr  
 180 185 190  
 Ser Phe Ser Val Asn Ile Lys Glu Leu Ile Leu Gly Arg Asn Leu Met  
 195 200 205  
 Asn Val Arg Asn Val Thr Lys Leu Ser Asp Arg Val Leu Thr Leu Leu  
 210 215 220  
 Asn Ile Arg Gly Ser Thr Leu Glu Arg Asn Arg Leu Arg Ala Met Asn  
 225 230 235 240  
 Val Gly Arg Pro Leu Ala Val Met Pro Ser Leu Leu Asn Ile Arg Glu  
 245 250 255  
 Phe Thr Gln Val Arg Asn His Met Asn Val Lys Asn Val Ile Lys Pro  
 260 265 270  
 Ser Asp Arg Val Leu Thr Leu Ile Asn Ile Arg Gly Phe Thr Leu Glu  
 275 280 285  
 Arg Asn Pro Met Asn Val Ile Ser Val Glu Lys Pro Ser Ala Asp Ala  
 290 295 300

<210> 191  
 <211> 336  
 <212> PRT  
 <213> Homo sapiens

<400> 191

Met Asp Thr Met Asn Val Val Met Pro Leu Ala Val Thr His Ser Leu  
 1 5 10 15  
 Leu Asn Leu Arg Glu Phe Thr Val Val Glu Lys Pro Tyr Ala Cys Asn  
 20 25 30  
 Asp Cys Gly Lys Ala Phe Ser His Asp Phe Phe Leu Ser Glu His Gln  
 35 40 45  
 Arg Thr His Ile Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Asn Lys  
 50 55 60  
 Ala Phe Arg Gln Ser Ala His Leu Ala Gln His Gln Arg Ile His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Phe Ala Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg  
 85 90 95  
 Tyr Ala Phe Leu Val Glu His Gln Arg Ile His Thr Gly Glu Lys Pro

<400> 192  
Leu Ala Ala Thr Arg Lys Phe Phe Leu Ser Ser His Ser Ser Ser Cys  
1 5 10 15  
Lys Lys Gly Ala Met Ser Gln Lys Glu Ala Pro Phe His Arg Gln Arg  
20 25 30



Leu His Arg Glu Arg Gly Asn Arg Arg Leu Gly Asn Gly Gly Glu Trp  
 35 40 45

Gly Arg Asn Trp Val Gln  
 50

<210> 193

<211> 27

<212> PRT

<213> Homo sapiens

<400> 193

Met His Gln Leu Phe Gly Leu Phe Val Thr Leu Met Phe Ala Ser Val  
 1 5 10 15

Gly Gly Gly Leu Gly Gly Ile Ile Leu Val Leu  
 20 25

<210> 194

<211> 106

<212> PRT

<213> Homo sapiens

<400> 194

Met Pro Gly Val Leu Gly Ala Leu Leu Gly Val Leu Val Ala Gly Leu  
 1 5 10 15

Ala Thr His Glu Ala Tyr Gly Asp Gly Leu Glu Ser Val Phe Pro Leu  
 20 25 30

Ile Ala Glu Gly Gln Arg Ser Ala Thr Ser Gln Ala Met His Gln Leu  
 35 40 45

Phe Gly Leu Phe Val Thr Leu Met Phe Ala Ser Val Gly Gly Gly Leu  
 50 55 60

Gly Gly Ile Ile Leu Val Leu Cys Leu Leu Asp Pro Cys Ala Leu Trp  
 65 70 75 80

His Trp Val Ala Pro Ser Ser Met Val Gly Gly Arg Glu Ala Ser Gln  
 85 90 95

Ile Leu Pro Tyr His His Gln Gly Ser Cys  
 100 105

<210> 195

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 195

Asn Leu Xaa Cys Cys Glu Pro Leu Lys Gly Thr Glu Ile Val His Leu  
1 5 10 15

Xaa Ser Ser Asp Phe Lys Ala Val Ala Cys Arg Cys Ser Gln Leu Asn  
20 25 30

Lys Ala Leu Pro Ser Thr Thr Leu Arg Gly Phe Val Cys Gly Ser Ser  
35 40 45

Cys Tyr Ile Ser Trp Phe Pro Asn Gln Glu Thr Arg  
50 55 60

<210> 196

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 196

Pro Gly Asn Glu Val Thr Asp Gly Gln Pro Arg Gln Pro Leu Arg Arg  
1 5 10 15

Leu Arg Leu Pro Cys Gly Ala Ser Leu Xaa Arg Xaa Pro Ala Ser Pro  
20 25 30

Ser Asp Ala Ile Gln Arg Ala Leu Pro Gly Arg Lys Leu Pro Arg Trp  
35 40 45

Asn Ala Ser Pro Glu Gln Arg Val Ala Val Pro Cys Gly Gly Leu Thr  
50 55 60

Gln Trp Leu Asn Thr Gly Lys Glu Leu Ala Leu Gly Val Arg Thr Ser  
65 70 75 80

Glu Thr

<210> 197

<211> 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 197

Arg Xaa Pro Ile Phe Ile Gly Glu Asn Phe Tyr Pro Pro Val Arg Gly  
 1 5 10 15

Arg Val Gly Met Ser Ala Cys Gln Gly Gly Gly Gly Gly Gly Gly  
 20 25 30

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly  
 35 40 45

Gly Gly Gly Gly Val Asp Lys Leu Pro Cys Leu Thr Met Cys Trp Cys  
 50 55 60

Gly Asn Gly Ala Gln Pro Ala Arg Leu Lys Val Asp Gly Ile Pro Thr  
 65 70 75 80

Gly Gln Arg Lys Ser Tyr Ala Asp Thr Pro Ala Trp Pro Gly  
 85 90

&lt;210&gt; 198

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 198

Met Thr Ala Ala Val Phe Phe Gly Cys Ala Phe Ile Ala Phe Gly Pro  
 1 5 10 15

Ala Leu Ala Leu Tyr Val Phe Thr Ile Ala Xaa Glu Pro Leu Arg Ile  
 20 25 30

Ile Phe Leu Ile Ala Gly Ala Phe Phe Trp Leu Val Ser Leu Leu Ile  
 35 40 45

Ser Ser Leu Val Trp Phe Met Ala Arg Val Ile Ile Asp Asn Lys Asp  
 50 55 60

Gly Pro Thr Gln Lys Tyr Leu Leu Ile Phe Gly Ala Phe Val Ser Val  
 65 70 75 80

Tyr Ile Gln Glu Met Phe Arg Phe Ala Tyr Tyr Lys Leu Leu Lys Lys  
 85 90 95

Ala Ser Glu Gly Leu Lys Ser Ile Asn Pro Gly Glu Thr Ala Pro Ser  
 100 105 110

Met Arg Leu Leu Ala Tyr Val Ser Gly Leu Gly Phe Gly Ile Met Ser  
 115 120 125

Gly Val Phe Ser Phe Val Asn Thr Leu Ser Asp Ser Leu Gly Pro Gly  
 130 135 140

Thr Val Gly Ile His Gly Asp Ser Pro Gln Phe Phe Leu Tyr Ser Ala  
 145 150 155 160

Phe Met Thr Leu Val Ile Ile Leu Leu His Val Phe Trp Gly Ile Val  
 165 170 175

Phe Phe Asp Gly Cys Glu Lys Lys Lys Trp Gly Ile Leu Leu Ile Val  
 180 185 190

Leu Leu Thr His Leu Leu Val Ser Ala Gln Thr Phe Ile Ser Ser Tyr  
 195 200 205

Tyr Gly Ile Asn Leu Ala Ser Ala Phe Ile Ile Leu Val Leu Met Gly  
 210 215 220

Thr Trp Ala Phe Leu Ala Ala Gly Gly Ser Cys Arg Ser Leu Lys Leu  
 225 230 235 240

Cys Leu Leu Cys Gln Asp Lys Asn Phe Leu Leu Tyr Asn Gln Arg Ser  
 245 250 255

Arg

<210> 199  
 <211> 257  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 199

Met Thr Ala Ala Val Phe Phe Gly Cys Ala Phe Ile Ala Phe Gly Pro  
 1 5 10 15

Ala Leu Ala Leu Tyr Val Phe Thr Ile Ala Ile Glu Pro Leu Arg Ile  
 20 25 30

Ile Phe Leu Ile Ala Gly Ala Phe Phe Trp Leu Val Ser Leu Leu Ile  
 35 40 45

Ser Ser Leu Val Trp Phe Met Ala Arg Val Ile Ile Asp Asn Lys Asp  
 50 55 60

Gly Pro Thr Gln Lys Tyr Leu Leu Ile Phe Gly Ala Phe Val Ser Val  
 65 70 75 80

Tyr Ile Gln Glu Met Phe Arg Phe Ala Tyr Tyr Lys Leu Leu Lys Lys  
 85 90 95

Ala Ser Glu Gly Leu Lys Ser Ile Asn Pro Gly Glu Thr Ala Pro Ser  
 100 105 110

```

Met Arg Leu Leu Ala Tyr Val Ser Gly Leu Gly Phe Gly Ile Met Ser
      115                      120                      125

Gly Val Phe Ser Phe Val Asn Thr Leu Ser Asp Ser Leu Gly Pro Gly
      130                      135                      140

Thr Val Gly Ile His Gly Asp Ser Pro Gln Phe Phe Leu Tyr Ser Ala
      145                      150                      155                      160

Phe Met Thr Leu Val Ile Ile Leu Leu His Val Phe Trp Gly Ile Val
      165                      170                      175

Phe Phe Asp Gly Cys Glu Lys Lys Lys Trp Gly Ile Leu Leu Ile Val
      180                      185                      190

Leu Leu Thr His Leu Leu Val Ser Ala Gln Thr Phe Ile Ser Ser Tyr
      195                      200                      205

Tyr Gly Ile Asn Leu Ala Ser Ala Phe Ile Ile Leu Val Leu Met Gly
      210                      215                      220

Thr Trp Ala Phe Leu Ala Ala Gly Gly Ser Cys Arg Ser Leu Lys Leu
      225                      230                      235                      240

Cys Leu Leu Cys Gln Asp Lys Asn Phe Leu Leu Tyr Asn Gln Arg Ser
      245                      250                      255

```

Arg

&lt;210&gt; 200

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 200

Trp Arg His Leu Thr Val Ser Xaa Gly Leu Gln Xaa Arg Leu Ser Xaa  
1 5 10 15

Arg Xaa Xaa Trp Glu Gly Xaa Pro Arg Ser Thr Thr Ala Ala Gly Trp  
20 25 30

Gly Arg Thr Gly  
35

<210> 201

<211> 21

<212> PRT

<213> Homo sapiens

<400> 201

His Leu Ser Leu Pro Arg Leu Leu Trp Thr Leu Gln Ile Pro Gln Cys  
1 5 10 15

Pro Gln Leu Gln Asp  
20

<210> 202

<211> 78

<212> PRT

<213> Homo sapiens

<400> 202

Asp Pro Gln Asn Ile Tyr Trp Glu His Leu Ser Ile Arg Gly Phe Ile  
1 5 10 15

Trp Trp Leu Arg Cys Leu Val Ile Asn Val Val Leu Phe Ile Leu Leu  
20 25 30

Phe Phe Leu Thr Thr Pro Ala Ile Ile Ile Thr Thr Met Asp Lys Phe  
35 40 45

Asn Val Thr Lys Pro Val Glu Tyr Leu Asn Val Arg Pro His Ala Pro  
50 55 60

Val Thr Phe His Ala Gly Ser Gln His Thr Asp Thr Arg Pro  
65 70 75

<210> 203

<211> 318

<212> PRT

<213> Homo sapiens

&lt;400&gt; 203

Met His Lys Cys Tyr Thr Phe Leu Ile Phe Met Val Leu Leu Leu Pro  
 1 5 10 15

Ser Leu Gly Leu Ser Ser Leu Asp Leu Phe Phe Arg Trp Leu Phe Asp  
 20 25 30

Lys Lys Phe Leu Ala Glu Ala Ala Ile Arg Phe Glu Cys Val Phe Leu  
 35 40 45

Pro Asp Asn Gly Ala Phe Phe Val Asn Tyr Val Ile Ala Ser Ala Phe  
 50 55 60

Ile Gly Asn Ala Met Asp Leu Leu Arg Ile Pro Gly Leu Leu Met Tyr  
 65 70 75 80

Met Ile Arg Leu Cys Leu Ala Arg Ser Ala Ala Glu Arg Arg Asn Val  
 85 90 95

Lys Arg His Gln Ala Tyr Glu Phe Arg Phe Gly Ala Ala Tyr Ala Trp  
 100 105 110

Met Met Cys Val Phe Thr Val Val Met Thr Tyr Ser Ile Thr Cys Pro  
 115 120 125

Ile Ile Val Pro Phe Gly Leu Met Tyr Met Leu Leu Lys His Leu Val  
 130 135 140

Asp Arg Tyr Asn Leu Tyr Tyr Ala Tyr Leu Pro Ala Lys Leu Asp Lys  
 145 150 155 160

Lys Ile His Ser Gly Ala Val Asn Gln Val Val Ala Ala Pro Ile Leu  
 165 170 175

Cys Leu Phe Trp Leu Leu Phe Phe Ser Thr Met Arg Thr Gly Phe Leu  
 180 185 190

Ala Pro Thr Ser Met Phe Thr Phe Val Val Leu Val Ile Thr Ile Val  
 195 200 205

Ile Cys Leu Cys His Val Cys Phe Gly His Phe Lys Tyr Leu Ser Ala  
 210 215 220

His Asn Tyr Lys Ile Glu His Thr Glu Thr Asp Thr Val Asp Pro Arg  
 225 230 235 240

Ser Asn Gly Arg Pro Pro Thr Ala Ala Ala Val Pro Lys Ser Ala Lys  
 245 250 255

Tyr Ile Ala Gln Val Leu Gln Asp Ser Glu Val Asp Gly Asp Gly Asp  
 260 265 270

Gly Ala Pro Gly Ser Ser Gly Asp Glu Pro Pro Ser Ser Ser Ser Gln  
 275 280 285

Asp Glu Glu Leu Leu Met Pro Pro Asp Ala Leu Thr Asp Thr Asp Phe  
 290 295 300

Gln Ser Cys Glu Asp Ser Leu Ile Glu Asn Glu Ile His Gln

305

310

315

<210> 204  
 <211> 65  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (21)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 204  
 Val Val Val Glu Leu Ile Asn Arg Xaa Gln Asn Tyr Phe Gln Tyr Ile  
 1 5 10 15

Val Tyr Leu Tyr Xaa Lys Arg Asp Gly Pro Phe Tyr Gly Gly Thr Leu  
 20 25 30

Ser Met Val Val Phe Cys Asp Val Leu Phe Leu Leu Leu Leu Phe Ala  
 35 40 45

Leu Phe Ser Pro Ile Thr Ala Leu Leu Ser Leu Lys Arg Ile Asn Phe  
 50 55 60

Ile  
 65

<210> 205  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 205  
 Ala Gln Glu Leu Arg Pro Ala Trp Glu Thr Trp Gln Gly Pro Ile Ser  
 1 5 10 15

Thr Glu Thr Thr Glu Asn Trp Val Gly Met Val Ala Arg Val Pro Ala  
 20 25 30

Ala Gln Glu Ala Glu Val Gly Gly Ser Leu Glu Pro Arg Arg Leu Arg  
 35 40 45

Leu Gln  
 50

<210> 206  
 <211> 90  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 206

Asp Leu Thr Cys Leu Leu Ser Ser Asn Phe Ile Ile Gly Ile Asn Val  
 1 5 10 15

His Phe Phe Pro Val Pro Val Ser Glu Ala Phe Ile Cys Val Cys Met  
 20 25 30

Cys Val Leu Asn Lys Cys Ile Arg Tyr Leu Lys Asn Ser Asn Leu Asn  
 35 40 45

Leu Asn Asn Leu Lys Asn Glu Ile Val Ile Leu Cys Val Lys Val Ser  
 50 55 60

Asp Val Leu Tyr Ser Ala Leu Lys Thr Ile Phe Ile Tyr Ser Ser Thr  
 65 70 75 80

Asp Thr Lys Tyr Ile Leu Lys Leu Leu Ser  
 85 90

&lt;210&gt; 207

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 207

Met Ser Cys Leu Trp Ala Gly Ile Lys Phe Leu Gly Phe Gly Phe Cys  
 1 5 10 15

Trp Met Asp Cys Ser Leu Cys Glu Pro Ile Trp Val Cys Gln Ile Gln  
 20 25 30

Ser Leu Gly Cys His Gly Asn Leu Ala  
 35 40

&lt;210&gt; 208

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 208

Ser Leu Asp Thr Ala Leu Leu Ser Thr Leu Cys Ser Leu Ala Phe Thr  
 1 5 10 15

Ala Ala Ser Thr Ser Ser Thr Val Ala Tyr Val Thr Asn Pro Lys Pro  
 20 25 30

Leu Glu His Leu Val Phe Gly Ser Leu Ile Thr Thr Val Cys Glu Cys  
 35 40 45

Ser Leu Leu Leu Arg Met Ala His Trp Thr Leu Thr Gly His Phe Lys  
 50 55 60

Ala Gln Leu Ser Asp Glu Glu Leu Leu Gln Leu Leu Gly Leu Leu Lys  
 65 70 75 80

Arg Leu Cys Leu Arg His Asp Ser Ser Gly Lys Arg Asp Phe Asn Asp  
                             85                            90                            95

Val Phe Ser Gly Ile His Gly  
                             100

<210> 209

<211> 49

<212> PRT

<213> Homo sapiens

<400> 209

Met Arg Gln Thr Lys Leu Glu Gly Trp Leu Ile Phe Pro Leu Phe Ser  
   1                            5                            10                            15

Cys Phe Ser Phe Ile Ser Leu Gly Ser Asp Glu Gly Pro Glu Ile Phe  
                             20                            25                            30

Ile Ser His Leu Lys Ser Leu Ala Asp Tyr Ser Arg Ala Leu Val Glu  
                             35                            40                            45

Val

<210> 210

<211> 49

<212> PRT

<213> Homo sapiens

<400> 210

Met Arg Gln Thr Lys Leu Glu Gly Trp Leu Ile Phe Pro Leu Phe Ser  
   1                            5                            10                            15

Cys Phe Ser Phe Ile Ser Leu Gly Ser Asp Glu Gly Pro Glu Ile Phe  
                             20                            25                            30

Ile Ser His Leu Lys Ser Leu Ala Asp Tyr Ser Arg Ala Leu Val Glu  
                             35                            40                            45

Val

<210> 211

<211> 489

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

&lt;221&gt; SITE

&lt;222&gt; (321)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 211

Met Pro Gln Ala Ser Glu His Arg Leu Gly Arg Thr Arg Glu Pro Pro  
 1 5 10 15

Val Asn Ile Gln Pro Arg Val Gly Ser Lys Leu Pro Phe Ala Pro Arg  
 20 25 30

Ala Arg Ser Lys Glu Arg Arg Asn Pro Ala Ser Gly Pro Asn Pro Met  
 35 40 45

Leu Arg Pro Leu Pro Pro Arg Pro Gly Leu Pro Asp Glu Arg Leu Lys  
 50 55 60

Lys Leu Glu Leu Gly Arg Gly Arg Thr Ser Gly Pro Arg Pro Xaa Gly  
 65 70 75 80

Pro Leu Arg Ala Asp His Gly Val Pro Leu Pro Gly Ser Pro Pro Pro  
 85 90 95

Thr Val Ala Leu Pro Leu Pro Ser Arg Thr Asn Leu Ala Arg Ser Lys  
 100 105 110

Ser Val Ser Ser Gly Asp Leu Arg Pro Met Gly Ile Ala Leu Gly Gly  
 115 120 125

His Arg Gly Thr Gly Glu Leu Gly Ala Ala Leu Ser Arg Leu Ala Leu  
 130 135 140

Arg Pro Glu Pro Pro Thr Leu Arg Arg Ser Thr Ser Leu Arg Arg Leu  
 145 150 155 160

Gly Gly Phe Pro Gly Pro Pro Thr Leu Phe Ser Ile Arg Thr Glu Pro  
 165 170 175

Pro Ala Ser His Gly Ser Phe His Met Ile Ser Ala Arg Ser Ser Glu  
 180 185 190

Pro Phe Tyr Ser Asp Asp Lys Met Ala His His Thr Leu Leu Leu Gly  
 195 200 205

Ser Gly His Val Gly Leu Arg Asn Leu Gly Asn Thr Cys Phe Leu Asn  
 210 215 220

Ala Val Leu Gln Cys Leu Ser Ser Thr Arg Pro Leu Arg Asp Phe Cys  
 225 230 235 240

Leu Arg Arg Asp Phe Arg Gln Glu Val Pro Gly Gly Gly Arg Ala Gln  
 245 250 255

Glu Leu Thr Glu Ala Phe Ala Asp Val Ile Gly Ala Leu Trp His Pro  
 260 265 270

Asp Ser Cys Glu Ala Val Asn Pro Thr Arg Phe Arg Ala Val Phe Gln  
 275 280 285

Lys Tyr Val Pro Ser Phe Ser Gly Tyr Ser Gln Gln Asp Ala Gln Glu

290                      295                      300  
 Phe Leu Lys Leu Leu Met Glu Arg Leu His Leu Glu Ile Asn Arg Arg  
 305                      310                      315                      320  
 Xaa Arg Arg Ala Pro Pro Ile Leu Ala Asn Gly Pro Val Pro Ser Pro  
                          325                      330                      335  
 Pro Arg Arg Gly Gly Ala Leu Leu Glu Glu Pro Glu Leu Ser Asp Asp  
                          340                      345                      350  
 Asp Arg Ala Asn Leu Met Trp Lys Arg Tyr Leu Glu Arg Glu Asp Ser  
                          355                      360                      365  
 Lys Ile Val Asp Leu Phe Val Gly Gln Leu Lys Ser Cys Leu Lys Cys  
                          370                      375                      380  
 Gln Ala Cys Gly Tyr Arg Ser Thr Thr Phe Glu Val Phe Cys Asp Leu  
 385                      390                      395                      400  
 Ser Leu Pro Ile Pro Lys Lys Gly Phe Ala Gly Gly Lys Val Ser Leu  
                          405                      410                      415  
 Arg Asp Cys Phe Asn Leu Phe Thr Lys Glu Glu Glu Leu Glu Ser Glu  
                          420                      425                      430  
 Asn Ala Pro Val Cys Asp Arg Cys Arg Gln Lys Thr Arg Ser Thr Lys  
                          435                      440                      445  
 Lys Leu Thr Val Gln Arg Phe Pro Arg Ile Leu Val Leu His Leu Asn  
                          450                      455                      460  
 Arg Phe Ser Ala Ser Arg Gly Ser Ile Lys Lys Ser Ser Val Gly Val  
 465                      470                      475                      480  
 Asp Phe Ser Thr Ala Ala Thr Glu Pro  
                          485

<210> 212  
 <211> 463  
 <212> PRT  
 <213> Homo sapiens

<400> 212  
 Ala Arg Gly Thr Asn Leu Ala Arg Ser Lys Ser Val Ser Ser Gly Asp  
   1                          5                          10                          15  
 Leu Arg Pro Met Gly Ile Ala Leu Gly Gly His Arg Gly Thr Gly Glu  
                           20                          25                          30  
 Leu Gly Ala Ala Leu Ser Arg Leu Ala Leu Arg Pro Glu Pro Pro Thr  
                           35                          40                          45  
 Leu Arg Arg Ser Thr Ser Leu Arg Arg Leu Gly Gly Phe Pro Gly Pro  
                           50                          55                          60  
 Pro Thr Leu Phe Ser Ile Arg Thr Glu Pro Pro Ala Ser His Gly Ser  
                           65                          70                          75                          80

111

Gln Leu Tyr Ala Leu Cys Asn His Ser Gly Ser Val His Tyr Gly His  
                             405                            410                            415

Tyr Thr Ala Leu Cys Arg Cys Gln Thr Gly Trp His Val Tyr Asn Asp  
                             420                            425                            430

Ser Arg Val Ser Pro Val Ser Glu Asn Gln Val Ala Ser Ser Glu Gly  
                             435                            440                            445

Tyr Val Leu Phe Tyr Gln Leu Met Gln Glu Pro Pro Arg Cys Leu  
                             450                            455                            460

<210> 213  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<400> 213  
 Lys Ile Glu Leu Met Val Cys Thr Lys Ser Leu Val Tyr Val Leu Val  
     1                            5                            10                            15

Phe Gln Asn Asn Phe Tyr Ile Asn Ile Tyr Ile Val Lys Lys Phe Phe  
                             20                            25                            30

Leu Ile Phe Gly Trp Asp Ile Arg Lys Tyr Leu Tyr Tyr Thr Leu Ser  
                             35                            40                            45

Tyr Tyr Asn Gly Thr  
                             50

<210> 214  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 214  
 Leu Leu Ser Cys Phe Tyr Phe Phe Leu  
     1                            5

<210> 215  
 <211> 66  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (11)  
 <223> Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 215

Met	Leu	Leu	Leu	Cys	Tyr	His	Xaa	Phe	Leu	Xaa	Phe	Val	Leu	Gly	Thr
1				5					10					15	

Gly	Xaa	Val	Asn	Ile	Glu	Glu	Ala	Glu	Lys	Leu	Leu	Lys	Pro	Tyr	Leu
			20					25					30		

Asn	Arg	Tyr	Pro	Lys	Gly	Ala	Ile	Phe	Leu	Phe	Phe	Ala	Gly	Arg	Ile
		35					40						45		

Glu	Val	Ile	Lys	Gly	Asn	Ile	Asp	Ala	Ala	Ile	Arg	Xaa	Phe	Glu	Glu
	50					55					60				

Cys	Cys
65	

&lt;210&gt; 216

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 216

Met	Leu	Leu	Leu	Cys	Tyr	His	Xaa	Phe	Leu	Xaa	Phe	Val	Leu	Gly	Thr
1				5					10					15	

Gly	Xaa	Val	Asn	Ile	Glu	Glu	Ala	Glu	Lys	Leu	Leu	Lys	Pro	Tyr	Leu
			20					25					30		

Asn Arg Tyr Pro Lys Gly Ala Ile Phe Leu Phe Phe Ala Gly Arg Ile  
                   35                  40                  45  
 Glu Val Ile Lys Gly Asn Ile Asp Ala Ala Ile Arg Xaa Phe Glu Glu  
                   50                  55                  60  
 Cys Cys  
           65

<210> 217  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 217  
 Met Tyr Lys Ile Thr Tyr Arg Val Cys Phe Leu Cys Gln Pro Leu Met  
           1                  5                  10                  15  
 Val Gly Leu Gly Cys Ile Gly Ser Ile Ala Ile Val Leu Leu Leu Leu  
                   20                  25                  30  
 Leu Leu Val Pro His Val Cys Pro Lys Ile Leu  
                   35                  40

<210> 218  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 218  
 Met Tyr Lys Ile Thr Tyr Arg Val Cys Phe Leu Cys Gln Pro Leu Met  
           1                  5                  10                  15  
 Val Gly Leu Gly Cys Ile Gly Ser Ile Ala Ile Val Leu Leu Leu Leu  
                   20                  25                  30  
 Leu Leu Val Pro His Val Cys Pro Lys Ile Leu  
                   35                  40

<210> 219  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<400> 219  
 Ala Pro Leu Ala Ala Ser Thr Ile Leu Ala Val Ala Ser Ala Arg Ile  
           1                  5                  10                  15  
 Leu Ala Ala Leu Lys Ser Leu Arg Glu Phe Ser Arg Ser Leu Ser Pro  
                   20                  25                  30  
 Ser Ala Ser Ala Leu Met Ala Leu Thr Arg Ser Asp Val Ala Trp Ala  
                   35                  40                  45



Arg Met Arg Ala Cys Arg Thr Ile Ser Pro Ala Ser Pro Met Glu Leu  
 50 55 60

Lys Met Phe Ser Val Thr Val Arg Met Val Ser Val Ala Trp Ser  
 65 70 75

<210> 220

<211> 72

<212> PRT

<213> Homo sapiens

<400> 220

Met Gly Thr Leu Met Val Leu Thr Arg Leu Ala Val Leu Leu Ala Thr  
 1 5 10 15

Ser Leu Ala Asp Cys Thr Asn Trp Arg Leu Ala Val Gly Leu Val Val  
 20 25 30

Arg Ala Glu Ala Arg Arg Gln Leu Leu His Ser Ala Glu Val Cys Leu  
 35 40 45

Ala Thr Met Val Ala Ala Glu Ser Thr Trp Ala Trp Val Gln Pro Gly  
 50 55 60

Ser Pro Lys Leu Trp Gln Ala Ile  
 65 70

<210> 221

<211> 72

<212> PRT

<213> Homo sapiens

<400> 221

Met Gly Thr Leu Met Val Leu Thr Arg Leu Ala Val Leu Leu Ala Thr  
 1 5 10 15

Ser Leu Ala Asp Cys Thr Asn Trp Arg Leu Ala Val Gly Leu Val Val  
 20 25 30

Arg Ala Glu Ala Arg Arg Gln Leu Leu His Ser Ala Glu Val Cys Leu  
 35 40 45

Ala Thr Met Val Ala Ala Glu Ser Thr Trp Ala Trp Val Gln Pro Gly  
 50 55 60

Ser Pro Lys Leu Trp Gln Ala Ile  
 65 70

<210> 222

<211> 43

<212> PRT

<213> Homo sapiens

&lt;400&gt; 222

Met Cys Arg Thr Gln Phe His Leu Phe Trp Phe Ile Val Thr Glu Leu  
 1 5 10 15

Ser Pro Val Ile Trp Ala Lys Ala Asn Gln Lys Leu Ser Cys Leu Ser  
 20 25 30

Gln Gln Thr Leu Val Leu Val Tyr Phe Cys Arg  
 35 40

&lt;210&gt; 223

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 223

Phe Ser Ile Phe Lys Asn His Ile Ser Leu Cys Trp Leu Ile Ile Ile  
 1 5 10 15

Asn Phe Lys His Ser Phe Leu Gln Ser Gly Phe Ser Glu Phe Phe Phe  
 20 25 30

Phe Lys Gln Xaa Xaa His Ser Phe Phe Leu Val Thr Ser Lys Gly Gly  
 35 40 45

Thr Gly Val Gly Gly Lys Glu Cys Leu Lys Met Lys Ser Leu Asp Ile  
 50 55 60

Glu Gly Pro Arg Arg Thr Gly Tyr Ala Lys Ile Ile Ser Asn Ser Ser  
 65 70 75 80

Thr Ile Leu Glu

&lt;210&gt; 224

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 224

Met Cys Arg Thr Gln Phe His Leu Phe Trp Phe Ile Val Thr Glu Leu  
 1 5 10 15

Ser Pro Val Ile Trp Ala Lys Ala Asn Gln Lys Leu Ser Cys Leu Ser  
 20 25 30

Gln Gln Thr Leu Val Leu Val Tyr Phe Cys Arg  
           35                          40

<210> 225  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 225  
 Pro His Cys Arg Trp Pro Gly Leu Tyr Arg Gln Leu Gly Arg Arg Arg  
       1                          5                          10                          15

Arg Ser Thr Ala Leu Leu Arg Cys His Asn Val  
                   20                          25

<210> 226  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 226  
 Met Arg Lys Arg Arg Pro Tyr Asn Arg Trp Thr Gly Cys Trp Leu Arg  
       1                          5                          10                          15

Leu Ala Val Ser Cys Arg Trp Ala Val Ala Ile Ser Ala Ser Pro Trp  
                   20                          25                          30

Leu Arg Leu Thr Ser  
                   35

<210> 227  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 227  
 Met Arg Lys Arg Arg Pro Tyr Asn Arg Trp Thr Gly Cys Trp Leu Arg  
       1                          5                          10                          15

Leu Ala Val Ser Cys Arg Trp Ala Val Ala Ile Ser Ala Ser Pro Trp  
                   20                          25                          30

Leu Arg Leu Thr Ser  
                   35

<210> 228  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 228

Met Ala Ala Thr Gln Thr Gly Thr Cys Leu Met Val Ala Ala Leu Cys  
 1 5 10 15

Phe Val Leu Val Leu Gly Ser Leu Val Pro Cys Leu Pro Glu Phe Ser  
 20 25 30

Ser Gly Ser Gln Thr Val Lys Glu Asp Pro Leu Ala Ala Asp Gly Val  
 35 40 45

Tyr Thr Ala Ser Gln Met Pro Ser Arg Ser Leu Leu Phe Tyr Asp Asp  
 50 55 60

Gly Ala Gly Leu Trp Glu Asp Gly Arg Ser Thr Leu Leu Pro Met Glu  
 65 70 75 80

Pro Pro Asp Gly Trp Glu Ile Asn Pro Gly Gly Pro Ala Glu Gln Arg  
 85 90 95

Pro Xaa Asp His Leu Gln His Asp His Leu Asp Ser Thr His Glu Thr  
 100 105 110

Thr Lys Tyr Leu Ser Glu Ala Trp Pro Lys Asp Gly Gly Asn Gly Thr  
 115 120 125

Ser Pro Asp Phe Ser His Ser Lys Glu Trp Phe His Asp Arg Asp Leu  
 130 135 140

Gly Pro Asn Thr Thr Ile Lys Leu Ser  
 145 150

&lt;210&gt; 229

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 229

Met Ala Ala Thr Gln Thr Gly Thr Cys Leu Met Val Ala Ala Leu Cys  
 1 5 10 15

Phe Val Leu Val Leu Gly Ser Leu Val Pro Cys Leu Pro Glu Phe Ser  
 20 25 30

Ser Gly Ser Gln Thr Val Lys Glu Asp Pro Leu Ala Ala Asp Gly Val  
 35 40 45

Tyr Thr Ala Ser Gln Met Pro Ser Arg Ser Leu Leu Phe Tyr Asp Asp  
 50 55 60

Gly Ala Gly Leu Trp Glu Asp Gly Arg Ser Thr Leu Leu Pro Met Glu  
 65 70 75 80

Pro Pro Asp Gly Trp Glu Ile Asn Pro Gly Gly Pro Ala Glu Gln Arg  
 85 90 95

Pro Arg Asp His Leu Gln His Asp His Leu Asp Ser Thr His Glu Thr  
                   100                  105                  110

Thr Lys Tyr Leu Ser Glu Ala Trp Pro Lys Asp Gly Gly Asn Gly Thr  
                   115                  120                  125

Ser Pro Asp Phe Ser His Ser Lys Glu Trp Phe His Asp Arg Asp Leu  
                   130                  135                  140

Gly Pro Asn Thr Thr Ile Lys Leu Ser  
                   145                  150

<210> 230  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 230  
 Met Cys Leu Thr Thr Ala Gly Phe Cys Leu Leu Ala Ile His Ser Phe  
           1                  5                  10                  15

Ala Leu Gly Val Gln Ser Arg Gln Gln His Ser Val Pro Ile Val Phe  
                   20                  25                  30

Glu Val Leu Pro Leu Arg Val Pro Glu Pro Ser Arg Val Thr Gly Cys  
                   35                  40                  45

Ser Ser Phe Phe Gln Thr Lys Val Leu Cys Lys Gln His Leu Leu Gly  
           50                  55                  60

Pro Arg Ala Ser Val Asn Ile Val Leu Ala Cys Leu Ala Cys Cys His  
           65                  70                  75                  80

Arg Lys Gly Leu Cys Val His Ile Pro Ala Asn Leu Met Ser Pro Ser  
                   85                  90                  95

Ser Ala Lys Leu Tyr His Ser Leu His  
                   100                  105

<210> 231  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 231  
 Phe Cys Leu Ile Trp Ser Ala Tyr Leu Leu Met Cys Leu Phe Leu Phe  
           1                  5                  10                  15

Cys Leu Phe Tyr Phe Tyr Phe Ser Val Asn Ala Arg Thr Asp Leu His  
                   20                  25                  30

Val Lys Ser Gly Leu  
                   35



<210> 235  
 <211> 160  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (55)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 235  
 Phe Phe Asp Ser Ile Gly Ala Leu Val Pro Gln Phe Leu Ala Asn Asp  
   1                  5                  10                  15  
 Asp Glu Leu Ser Ser His Thr Tyr Gly Leu Leu Val Asn Lys Asn Asn  
                   20                  25                  30  
 His Leu Gly His Leu Ala Val Cys Ile Ser Gln Cys Ile Trp Gly Leu  
                   35                  40                  45  
 Leu Ser Pro Cys Glu Leu Xaa Gly Ile Ser Leu Gly Ser Ile Ile Leu  
                   50                  55                  60  
 Phe Cys Pro Thr Pro Cys Ser Met Gln Thr Pro Ser Pro Ala Cys Trp  
   65                  70                  75                  80  
 Ser Pro Ser Gly Asn Pro Gly Leu Ala His Thr Leu Cys Trp Arg Ala  
                   85                  90                  95  
 Cys Thr Leu Met Pro Leu Leu Arg Leu Gly Pro Tyr Leu Val Thr Leu  
                   100                  105                  110  
 Phe Ala Leu Pro Ser Glu Thr Glu Gln Leu Ala Pro Ser Ala Leu Val  
                   115                  120                  125  
 Val Pro Cys Glu Ala Leu Leu Leu Ser Gly Phe Leu His Arg Asp Pro  
   130                  135                  140  
 Cys Arg Leu Pro Ala Asp Met Gln Asp Ala Leu Leu Ser Val Asp Val  
   145                  150                  155                  160

<210> 236  
 <211> 40  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (15)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 236  
 Met Ala Tyr Ser Pro Leu Leu Ile Ser Leu Val Leu Ala Phe Xaa Pro

1                      5                      10                      15  
Ala Ser Thr Tyr Gly Arg Ala Ser Ile Asp Phe Thr Cys Phe Pro Asn  
                    20                      25                      30  
His Tyr Gly Ile Ser Asn Gln Tyr  
                    35                      40

<210> 237  
<211> 236  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (3)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (73)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (97)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (112)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (117)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (122)  
<223> Xaa equals any of the naturally occurring L-amino acids



&lt;400&gt; 237

```

Met Glu Xaa Pro Ala Gln Leu Leu Phe Leu Leu Leu Trp Leu Pro
 1           5           10           15

Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Xaa Thr Leu Ser
           20           25           30

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
           35           40           45

Val Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
           50           55           60

Arg Leu Leu Ile Tyr Xaa Ala Ser Xaa Arg Ala Thr Gly Ile Pro Xaa
           65           70           75           80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
           85           90           95

Xaa Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Xaa
           100          105          110

Asn Trp Pro Pro Xaa Tyr Thr Phe Gly Xaa Gly Thr Lys Val Glu Ile
           115          120          125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
           130          135          140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
           145          150          155          160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
           165          170          175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
           180          185          190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
           195          200          205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
           210          215          220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
           225          230          235

```

&lt;210&gt; 238

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 238

```

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Trp Leu Ser
 1           5           10           15

Gly Ala Lys Cys Asp Thr Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
           20           25           30

```

```
<220> .
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
```

&lt;400&gt; 239

Val His Ala Xaa Thr Pro Phe Ala Gly Xaa Cys Phe Asp Pro Val Ser  
1 5 10 15

Leu Tyr Trp Cys Tyr Xaa Asn Pro Gly Thr His Cys Tyr Pro Thr Leu  
20 25 30

Arg Gly Xaa Glu Gln Arg Xaa Pro Ser Xaa Arg Ser His Ile Val Leu  
35 40 45

Arg Ser  
50

&lt;210&gt; 240

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 240

Met Val Ser Pro Leu Ile Ser Ala Leu Phe His Val Pro Phe Leu Trp  
1 5 10 15

Leu Gly Met Phe Phe Pro His Ser Leu Ser Gly Pro Phe Pro Ser His  
20 25 30

Leu Arg Arg Ala Ser Ser Ser Arg Lys Pro Leu Val Lys Pro Pro Arg  
35 40 45

Ala Arg Gln Tyr Pro Pro Leu Ala Ser Ser Gly Tyr Arg Gly Arg Ile  
50 55 60

&lt;210&gt; 241

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 241

Met Ser Phe Pro His Ala Ser Thr Leu Pro Phe His Lys Leu Ser Asp  
1 5 10 15

Leu Gln His Thr Leu Pro Asn His Gln Gly  
20 25

&lt;210&gt; 242

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 242

Met Val Ser Pro Leu Ile Ser Ala Leu Phe His Val Pro Phe Leu Trp

1                      5                      10                      15  
 Leu Gly Met Phe Phe Pro His Ser Leu Ser Gly Pro Phe Pro Ser His  
                     20                      25                      30  
 Leu Arg Arg Ala Ser Ser Ser Arg Lys Pro Leu Val Lys Pro Pro Arg  
                     35                      40                      45  
 Ala Arg Gln Tyr Pro Pro Leu Ala Ser Ser Gly Tyr Arg Gly Arg Ile  
                     50                      55                      60

<210> 243  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (21)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (31)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 243  
 Phe Asn Phe Lys Phe Ala His Arg Pro Ser Asn Pro Leu Val Asn Leu  
                     1                      5                      10                      15

Thr Val Ser Pro Xaa Arg Asn Ser Ser Leu Xaa Thr Arg Lys Xaa Pro  
                     20                      25                      30

Cys Arg Glu Ser Lys Lys Phe Asn Thr His Ser Arg Pro Lys Ser Ser  
                     35                      40                      45

His Gln Leu Arg Lys Arg Ser Ser Ser Thr Pro Thr Thr  
                     50                      55                      60

<210> 244  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 244  
 Met Leu Ile Phe Leu Lys Cys Leu Thr Val Ser Tyr Ala Lys Tyr Ser  
                     1                      5                      10                      15

Ser Lys Ile Tyr Thr Ala Val Ser Asn Thr Phe Ser Thr Ala Ser Asp  
                   20                  25                  30

Ser Trp Leu Cys Val Lys Thr Pro Arg Gly Tyr His Trp Phe Met Ser  
                   35                  40                  45

Leu Glu Thr Pro Asp Ile Glu Gln  
                   50                  55

<210> 245

<211> 10

<212> PRT

<213> Homo sapiens

<400> 245

Val Leu Leu Phe Leu Ser Leu Leu Thr Ser  
                   1                  5                  10

<210> 246

<211> 56

<212> PRT

<213> Homo sapiens

<400> 246

Met Leu Ile Phe Leu Lys Cys Leu Thr Val Ser Tyr Ala Lys Tyr Ser  
                   1                  5                  10                  15

Ser Lys Ile Tyr Thr Ala Val Ser Asn Thr Phe Ser Thr Ala Ser Asp  
                   20                  25                  30

Ser Trp Leu Cys Val Lys Thr Pro Arg Gly Tyr His Trp Phe Met Ser  
                   35                  40                  45

Leu Glu Thr Pro Asp Ile Glu Gln  
                   50                  55

<210> 247

<211> 75

<212> PRT

<213> Homo sapiens

<400> 247

Glu Asp Met Pro Arg Arg Lys Glu Glu Leu Thr Asp Tyr Gln Lys Lys  
                   1                  5                  10                  15

Lys Val Ile Leu Gln Asn Leu Lys His Ser Leu Phe Leu Ser Leu Leu  
                   20                  25                  30

Ser His Tyr Phe Tyr Ser Asn Pro Leu Glu Tyr Leu His Phe Ala Ser  
                   35                  40                  45

Glu Gln Arg Asp Lys Phe Phe Ser His His Val Cys Thr Gly Val Val  
                   50                  55                  60

Leu Ile Leu Asp Ile Ala Gly Thr Asn Phe Ser  
 65 70 75

<210> 248  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 248  
 Met Ile Tyr Phe Ala Leu Leu Leu Ala Ser Leu Phe Phe Leu Leu Lys  
 1 5 10 15  
 Val Lys Ser His Phe Gly Cys Lys Asn Val Thr Thr Thr Ser Ala Arg  
 20 25 30  
 Ile Phe Leu Lys Pro Leu Cys Thr Pro Lys Ser Ile Phe Pro Leu Ser  
 35 40 45  
 Arg Tyr Gly Arg Met Ser Ser  
 50 55

<210> 249  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 249  
 Met Ile Tyr Phe Ala Leu Leu Leu Ala Ser Leu Phe Phe Leu Leu Lys  
 1 5 10 15  
 Val Lys Ser His Phe Gly Cys Lys Asn Val Thr Thr Thr Ser Ala Arg  
 20 25 30  
 Ile Phe Leu Lys Pro Leu Cys Thr Pro Lys Ser Ile Phe Pro Leu Ser  
 35 40 45  
 Arg Tyr Gly Arg Met Ser Ser  
 50 55

<210> 250  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 250  
 Met Leu His Asn Ala Phe Leu Phe Val Leu Phe Ala Leu Val Ser Gly  
 1 5 10 15  
 Tyr Gly Asn Tyr Ala Ala Thr Ala His Asp Trp Leu Tyr Glu Asn Gly  
 20 25 30  
 Gln Leu Ser Arg Lys Glu Ala Asp Ala Val Leu Tyr Arg Ala Leu Arg  
 35 40 45

Ala Glu Gly Val Ala Arg Trp Arg Ala Trp Leu Met Tyr Ala Gly Val  
 50 55 60

Arg Leu Gly Gly Ala Lys Gln Tyr Lys Thr Pro Thr Ser Ser Gly Phe  
 65 70 75 80

Ser Ser Ser Gly Asp  
 85

<210> 251  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 251  
 Met Leu His Asn Ala Phe Leu Phe Val Leu Phe Ala Leu Val Ser Gly  
 1 5 10 15

Tyr Gly Asn Tyr Ala Ala Thr Ala His Asp Trp Leu Tyr Glu Asn Gly  
 20 25 30

Gln Leu Ser Arg Lys Glu Ala Asp Ala Val Leu Tyr Arg Ala Leu Arg  
 35 40 45

Ala Glu Gly Val Ala Arg Trp Arg Ala Trp Leu Met Tyr Ala Gly Val  
 50 55 60

Arg Leu Gly Gly Ala Lys Gln Tyr Lys Thr Pro Thr Ser Ser Gly Phe  
 65 70 75 80

Ser Ser Ser Gly Asp  
 85

<210> 252  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<400> 252  
 Met Ile Ile Ala Asn Ile Phe Met Asn Pro Leu Leu Cys Ala Gly Tyr  
 1 5 10 15

Leu Phe Cys Phe Ala Tyr Thr Leu Ile His Leu Ile Leu Leu Thr Thr  
 20 25 30

Ser Glu Val Cys Ser Ile Thr Ala Pro Phe Phe Thr Ala Val Leu Gln  
 35 40 45

Ser Ser Ala Cys Pro Ser Thr His Trp Pro Glu  
 50 55

<210> 253  
 <211> 59  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 253

```

Met Ile Ile Ala Asn Ile Phe Met Asn Pro Leu Leu Cys Ala Gly Tyr
 1             5             10             15

Leu Phe Cys Phe Ala Tyr Thr Leu Ile His Leu Ile Leu Leu Thr Thr
          20             25             30

Ser Glu Val Cys Ser Ile Thr Ala Pro Phe Phe Thr Ala Val Leu Gln
          35             40             45

Ser Ser Ala Cys Pro Ser Thr His Trp Pro Glu
 50             55

```

&lt;210&gt; 254

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 254

```

Met Leu Phe Leu Ile Tyr Val Ser Leu Leu Met Leu Leu Phe Ser Leu
 1             5             10             15

Cys Leu Ser Leu Pro His Leu Gln Pro Pro Ser Leu Arg Glu Ile Leu
          20             25             30

Ile Pro Val His Ser Leu Arg Phe Ser Leu Val Ser Pro Leu His Gly
          35             40             45

Ser Leu Ala Ser Ser Leu Leu Leu Gln His Cys Gly Thr Leu Arg Gln
          50             55             60

Val Phe Phe
 65

```

&lt;210&gt; 255

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 255

```

Met Leu Phe Leu Ile Tyr Val Ser Leu Leu Met Leu Leu Phe Ser Leu
 1             5             10             15

Cys Leu Ser Leu Pro His Leu Gln Pro Pro Ser Leu Arg Glu Ile Leu
          20             25             30

Ile Pro Val His Ser Leu Arg Phe Ser Leu Val Ser Pro Leu His Gly
          35             40             45

Ser Leu Ala Ser Ser Leu Leu Leu Gln His Cys Gly Thr Leu Arg Gln
          50             55             60

Val Phe Phe
 65

```



<210> 256  
 <211> 86  
 <212> PRT  
 <213> Homo sapiens

<400> 256  
 Ser Leu Lys His Phe Trp Ser Gln Gly Phe Trp Ile Lys Asp Thr Gln  
     1                    5                    10                    15  
 Cys Ala Thr Cys Arg Met Val Val Ala Arg Trp Glu Glu Arg Met Glu  
                     20                    25                    30  
 Ser Tyr Cys Leu Met Ile Gln Cys Phe Arg Leu Gly Arg Trp Lys Val  
                     35                    40                    45  
 Leu Glu Met Cys Asp Gly Tyr Gly Cys Ala Thr Met Gly Arg Tyr Leu  
                     50                    55                    60  
 Val Leu Leu Asn Cys Ala His Leu Lys Met Val Lys Met Ile Asn Phe  
                     65                    70                    75                    80  
 Val Tyr Val Leu Lys Gln  
                                     85

<210> 257  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (37)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 257  
 Met Gln Arg Leu Gly Lys Ala Pro Gly Thr Trp Gln Ala Ile Ser Lys  
     1                    5                    10                    15  
 Cys Trp Leu Leu Leu Leu Ser Leu Pro Phe Ser Gln Ser Ile Ile  
                     20                    25                    30  
 Ile Ser Leu Xaa Xaa Gly Thr Met Ser Tyr Leu Pro Leu Tyr Phe Pro  
                     35                    40                    45  
 Gln Tyr Phe Pro  
                     50

<210> 258

<211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 258  
 Met Gln Arg Leu Gly Lys Ala Pro Gly Thr Trp Gln Ala Ile Ser Lys  
     1                    5                    10                    15  
 Cys Trp Leu Leu Leu Leu Ser Leu Pro Phe Ser Gln Ser Ile Ile  
                     20                    25                    30  
 Ile Ser Leu Arg Ala Gly Thr Met Ser Tyr Leu Pro Leu Tyr Phe Pro  
                     35                    40                    45  
 Gln Tyr Phe Pro  
                     50

<210> 259  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 259  
 Met Leu Cys Val Leu Leu Ala Val Ala Phe Gln Ser Ser Pro Ile Pro  
     1                    5                    10                    15  
 Gly Ala Ala Ala  
                     20

<210> 260  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 260  
 Met Ala Leu Phe Arg Pro Ile Leu Leu Pro Ala Pro Gly Ala Trp Trp  
     1                    5                    10                    15  
 Trp Pro Cys His His Ala Leu Cys Pro Ser Gly Cys Gly Phe Pro Glu  
                     20                    25                    30  
 Gln Pro His Ser Arg Cys Ser Ser Leu Glu Leu Gln Ser Ala Ser Arg  
                     35                    40                    45  
 Gln Cys Trp Leu Gln Trp Leu Gly Asp Ile Arg Pro Leu Leu Leu Gln  
     50                    55                    60  
 Gly Arg Glu Val Thr  
     65

<210> 261  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 261

Met Gly Leu Ile Ala Ala Asp Val Asn Leu Asp Leu Leu Val Gln Val  
 1 5 10 15

Val Pro Ala Ser Cys Leu His Cys Gly Val Thr Ile Phe Pro Phe Pro  
 20 25 30

His Xaa Ile His Gln Lys Pro Val Thr Lys Arg Gly Gln Thr Pro Gly  
 35 40 45

Gln Gly Asn  
 50

&lt;210&gt; 262

&lt;211&gt; 51

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 262

Met Gly Leu Ile Ala Ala Asp Val Asn Leu Asp Leu Leu Val Gln Val  
 1 5 10 15

Val Pro Ala Ser Cys Leu His Cys Gly Val Thr Ile Phe Pro Phe Pro  
 20 25 30

His Phe Ile His Gln Lys Pro Val Thr Lys Arg Gly Gln Thr Pro Gly  
 35 40 45

Gln Gly Asn  
 50

&lt;210&gt; 263

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 263

Ser Cys Ile Ser Trp Val Phe Val Met Ile Asn Gly Leu  
 1 5 10

&lt;210&gt; 264

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 264

Met Asn Ala Ser Leu Ile Ser Trp Val Leu Val Leu His Arg Ile Cys  
 1 5 10 15

Leu Gly Leu Ser Asp Ile Pro Lys Glu Asn Cys Ile Ile Thr Ile Ser  
                   20                  25                  30  
 Gly Met Gln Leu Ser His His Gly Gln Ser Leu Gly Lys Trp Ala Glu  
                   35                  40                  45  
 Lys Leu His Val Phe Tyr Ser Leu Phe Ser Phe Leu Leu  
                   50                  55                  60

<210> 265  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (28)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 265  
 Arg Ala Pro Arg Arg Thr Gly Pro Ala Ser Phe Ser Ser Arg Pro Ala  
   1                  5                  10                  15  
 Gly Thr Cys Ser Asp Asn Arg Val Thr Ser Phe Xaa Asp Leu Ile His  
                   20                  25                  30  
 Asp Gln Asp Glu Asp Glu Glu Glu Glu Gly Gln Arg Phe Tyr Ala  
                   35                  40                  45  
 Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro Arg Lys  
                   50                  55                  60  
 Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala Lys Glu  
   65                  70                  75                  80  
 His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly Glu Thr  
                   85                  90                  95  
 Ser Lys Pro Arg Pro Phe Ala Gly Gly Gly Tyr Arg Leu Gly Ala Ala  
                   100                  105                  110  
 Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln His Ser  
                   115                  120                  125  
 Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly Phe Ser  
                   130                  135                  140  
 Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn Ala Gln  
   145                  150                  155                  160  
 Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu Arg Arg  
                   165                  170                  175  
 Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His Arg Asp  
                   180                  185                  190  
 Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr Gly Glu

195	200	205
Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr Ser Ser		
210	215	220
Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser Ile Leu		
225	230	235 240
Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu Ala Asp		
245	250	255
Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile Ser Asp		
260	265	270
Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala Thr Ser		
275	280	285
Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp Glu Ser		
290	295	300
Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val Gln Arg		
305	310	315 320
Leu Thr		

<210> 266  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 266  
 Met Asn Ala Ser Leu Ile Ser Trp Val Leu Val Leu His Arg Ile Cys  
 1 5 10 15  
 Leu Gly Leu Ser Asp Ile Pro Lys Glu Asn Cys Ile Ile Thr Ile Ser  
 20 25 30  
 Gly Met Gln Leu Ser His His Gly Gln Ser Leu Gly Lys Trp Ala Glu  
 35 40 45  
 Lys Leu His Val Phe Tyr Ser Leu Phe Ser Phe Leu Leu  
 50 55 60

<210> 267  
 <211> 4  
 <212> PRT  
 <213> Homo sapiens

<400> 267  
 Pro Asn Ser Pro  
 1

<210> 268

<211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 268  
 Met Asp Pro Lys Leu Pro Val Ile Thr Ile Ile Ile Ile Ile Ala  
     1                    5                    10                    15  
 Tyr Ala Phe Val Glu Pro Leu Leu Cys Thr Trp Pro Val Thr Gly Thr  
                     20                    25                    30  
 Leu Ser Val Thr Gln Met Gln Val Ser His Leu Thr Leu Ala Ser Thr  
             35                    40                    45  
 Leu Arg Asp Gly Phe Tyr Gln His Pro His Phe Thr Asp Glu Glu Asn  
             50                    55                    60

<210> 269  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 269  
 Met Asp Pro Lys Leu Pro Val Ile Thr Ile Ile Ile Ile Ile Ala  
     1                    5                    10                    15  
 Tyr Ala Phe Val Glu Pro Leu Leu Cys Thr Trp Pro Val Thr Gly Thr  
                     20                    25                    30  
 Leu Ser Val Thr Gln Met Gln Val Ser His Leu Thr Leu Ala Ser Thr  
             35                    40                    45  
 Leu Arg Asp Gly Phe Tyr Gln His Pro His Phe Thr Asp Glu Glu Asn  
             50                    55                    60

<210> 270  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 270  
 Met Val Ser Leu Cys Ser Gly Leu Pro Ser Ser Cys Leu Leu Leu Gly  
     1                    5                    10                    15  
 Ser Thr Ala Ala Ile Ile Gln Arg Gln Val Cys Leu Phe Gln Gly Ala  
                     20                    25                    30  
 Arg Gln Trp Asn Pro Val Ser Glu Phe Leu Arg Ala His His His Cys  
             35                    40                    45

Gly Asn Arg Ala Gly Leu Pro Ala Val Leu  
 50 55

<210> 271  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 271  
 Met Val Ser Leu Cys Ser Gly Leu Pro Ser Ser Cys Leu Leu Leu Gly  
 1 5 10 15

Ser Thr Ala Ala Ile Ile Gln Arg Gln Val Cys Leu Phe Gln Gly Ala  
 20 25 30

Arg Gln Trp Asn Pro Val Ser Glu Phe Leu Arg Ala His His His Cys  
 35 40 45

Gly Asn Arg Ala Gly Leu Pro Ala Val Leu  
 50 55

<210> 272  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (19)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (73)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 272  
 Lys Ala Pro Ser Ser His Pro Gly Leu Thr Cys Val Ser Leu Ser Arg  
 1 5 10 15

Leu Gln Xaa Ser Leu Ser Leu Cys Phe Pro Ser Gly Pro Cys Trp Ala  
 20 25 30

Gly Leu Leu Ser Ser Leu Ala Leu Ala Gly Gly Ala Pro Gly Ala Leu  
 35 40 45

Pro Pro Trp Gln Pro Gly Gln Asp Ser Lys Met Arg Thr Ala Glu Leu  
 50 55 60

Val Gly Gly Ser His Gly Pro Ala Xaa Gly Pro Gly Glu Ala Glu Pro  
 65 70 75 80

Glu Pro Thr Ala Val Val Leu Trp Thr Val Asp Pro Glu Gly Gly Leu  
 85 90 95

Gly Gln Val Pro Ala Glu Gly Pro Gly Gly Leu Cys Val Pro Leu Gly

100

105

110

Pro Gly Ala Leu Val Thr Trp Thr Pro Gly  
115 120

&lt;210&gt; 273

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 273

Ser Thr Cys Cys Gly Trp Gly Pro Leu Gly His Ser Arg Val Arg Gly  
1 5 10 15

Cys His Cys His Leu Gly His Val Gly Arg His Gln His Phe Val Val  
20 25 30

Thr Asn Ser Thr Val Thr Asn Ile Phe Gly Gln Ile Pro Phe Tyr Thr  
35 40 45

Ser Arg Gln Leu Leu Val Cys Asn Pro Thr Gly Gln Arg Glu Gly Pro  
50 55 60

Val Thr Trp Leu Ser His Cys Pro Ala Pro Gln Met Val Leu Gly Leu  
65 70 75 80

Leu Phe Ser Leu Gly Pro Ala Asn Thr Thr Val Phe Thr Ser Ala His  
85 90 95

Trp Leu Ser Ala Val Val Pro Gly Ser Gln Trp His Val Ser Pro Arg  
100 105 110

Ser Ser Leu Ile Pro Gln His Thr Pro Lys Gly Ser Val Ala Asn Thr  
115 120 125

Leu Asn  
130

&lt;210&gt; 274

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 274

Met Arg Leu Arg Asn Gly Thr Val Ala Thr Ala Leu Ala Phe Ile Thr  
1 5 10 15

Ser Phe Leu Thr Leu Ser Trp Tyr Thr Thr Trp Gln Asn Gly Lys Gly  
20 25 30

Lys Glu Asn Asp Ser Glu Asn Val His Glu Met Tyr  
35 40

&lt;210&gt; 275



<211> 216  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (6)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (18)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 275  
 Cys Phe Pro Trp Gly Xaa Ala Leu Arg Gln Lys Leu Phe Pro Ser Ala  
           1                  5                  10                  15  
 Leu Xaa Ala Leu Val Pro Ser Gly Ala Gln Pro Leu Pro Ala Thr Lys  
                   20                  25                  30  
 Asp Thr Val Leu Ala Pro Leu Arg Met Ser Gln Val Arg Ser Leu Val  
           35                  40                  45  
 Ile Gly Leu Gln Asn Leu Leu Val Gln Lys Asp Pro Leu Leu Ser Gln  
           50                  55                  60  
 Ala Cys Val Gly Cys Leu Glu Ala Leu Leu Asp Tyr Leu Asp Ala Arg  
           65                  70                  75                  80  
 Ser Pro Asp Ile Ala Leu His Val Ala Ser Gln Pro Trp Asn Arg Phe  
                   85                  90                  95  
 Leu Leu Phe Thr Leu Leu Asp Ala Gly Glu Asn Ser Phe Leu Arg Pro  
           100                  105                  110  
 Glu Ile Leu Arg Leu Met Thr Leu Phe Met Arg Tyr Arg Ser Ser Ser  
           115                  120                  125  
 Val Leu Ser His Glu Glu Val Gly Asp Val Leu Gln Gly Val Ala Leu  
           130                  135                  140  
 Ala Asp Leu Ser Thr Leu Ser Asn Thr Thr Leu Gln Ala Leu His Gly  
           145                  150                  155                  160  
 Phe Phe Gln Gln Leu Gln Ser Met Gly His Leu Ala Asp His Ser Met  
                   165                  170                  175  
 Ala Gln Thr Leu Gln Ala Ser Leu Glu Gly Leu Pro Pro Ser Thr Ser  
           180                  185                  190  
 Ser Gly Gln Pro Pro Leu Gln Asp Met Leu Cys Leu Gly Gly Val Ala  
           195                  200                  205  
 Val Ser Leu Ser His Ile Arg Asn  
           210                  215

<210> 276

<211> 122  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (100)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (109)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 276

Met Leu Ala Leu Thr Leu Ala Lys Ala Asp Ser Pro Arg Thr Ala Leu  
 1 5 10 15

Leu Cys Ser Ala Trp Leu Leu Thr Ala Ser Phe Ser Ala Gln Gln His  
 20 25 30

Lys Gly Ser Leu Gln Val His Gln Thr Leu Ser Val Glu Met Asp Gln  
 35 40 45

Val Leu Lys Ala Leu Ser Phe Pro Lys Lys Lys Ala Ala Leu Leu Ser  
 50 55 60

Thr Ala Ile Leu Cys Phe Leu Arg Thr Ala Leu Arg Gln Ser Phe Ser  
 65 70 75 80

Ser Ala Trp Asn Pro Gly Ala Leu Lys Gly Pro Xaa Thr Ala Ala Thr  
 85 90 95

Lys Asp Thr Xaa Leu Thr Ser Leu Arg Met Ser Lys Xaa Gly Pro Gly  
 100 105 110

His Trp Ala Xaa Lys Thr Ser Trp Cys Lys  
 115 120

<210> 277  
 <211> 282  
 <212> PRT  
 <213> Homo sapiens

<400> 277

Met Leu Ala Leu Thr Leu Ala Lys Ala Asp Ser Pro Arg Thr Ala Leu  
 1 5 10 15

Leu Cys Ser Ala Trp Leu Leu Thr Ala Ser Phe Ser Ala Gln Gln His  
                   20                                  25                                  30  
 Lys Gly Ser Leu Gln Val His Gln Thr Leu Ser Val Glu Met Asp Gln  
                   35                                  40                                  45  
 Val Leu Lys Ala Leu Ser Phe Pro Lys Lys Lys Ala Ala Leu Leu Ser  
                   50                                  55                                  60  
 Ala Ala Ile Leu Cys Phe Leu Arg Thr Ala Leu Arg Gln Ser Phe Ser  
                   65                                  70                                  75                                  80  
 Ser Ala Leu Val Ala Leu Val Pro Ser Gly Ala Gln Pro Leu Pro Ala  
                                   85                                  90                                  95  
 Thr Lys Asp Thr Val Leu Ala Pro Leu Arg Met Ser Gln Val Arg Ser  
                   100                                  105                                  110  
 Leu Val Ile Gly Leu Gln Asn Leu Leu Val Gln Lys Asp Pro Leu Leu  
                   115                                  120                                  125  
 Ser Gln Ala Cys Val Gly Cys Leu Glu Ala Leu Leu Asp Tyr Leu Asp  
                   130                                  135                                  140  
 Ala Arg Ser Pro Asp Ile Ala Leu His Val Ala Ser Gln Pro Trp Asn  
                   145                                  150                                  155                                  160  
 Arg Phe Leu Leu Phe Thr Leu Leu Asp Ala Gly Glu Asn Ser Phe Leu  
                                   165                                  170                                  175  
 Arg Pro Glu Ile Leu Arg Leu Met Thr Leu Phe Met Arg Tyr Arg Ser  
                   180                                  185                                  190  
 Ser Ser Val Leu Ser His Glu Glu Val Gly Asp Val Leu Gln Gly Val  
                   195                                  200                                  205  
 Ala Leu Ala Asp Leu Ser Thr Leu Ser Asn Thr Thr Leu Gln Ala Leu  
                   210                                  215                                  220  
 His Gly Phe Phe Gln Gln Leu Gln Ser Met Gly His Leu Ala Asp His  
                   225                                  230                                  235                                  240  
 Ser Met Ala Gln Thr Leu Gln Ala Ser Leu Glu Gly Leu Pro Pro Ser  
                   245                                  250                                  255  
 Thr Ser Ser Gly Gln Pro Pro Leu Gln Asp Met Leu Cys Leu Gly Gly  
                   260                                  265                                  270  
 Val Ala Val Ser Leu Ser His Ile Arg Asn  
                   275                                  280

&lt;210&gt; 278

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 278

Met Ala Phe Gly Gln Glu Val Thr His Leu Thr Lys Thr Ser Trp Leu

1                      5                      10                      15  
 Ala Pro Leu Arg Phe Ile Lys Gly Leu Leu Gly Pro Trp Gly Trp Ile  
                     20                      25                      30

Leu Leu Ile Leu Asp Leu Glu  
                     35

<210> 279  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 279  
 Met Ala Phe Gly Gln Glu Val Thr His Leu Thr Lys Thr Ser Trp Leu  
                     1                      5                      10                      15

Ala Pro Leu Arg Phe Ile Lys Gly Leu Leu Gly Pro Trp Gly Trp Ile  
                     20                      25                      30

Leu Leu Ile Leu Asp Leu Glu  
                     35

<210> 280  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 280  
 Gly Leu Asp Val Gln Pro Val Ala Gln Gly Ser Lys Leu Thr Gln Glu  
                     1                      5                      10                      15

Val Arg Glu Gly Cys Leu Ala Val Ala Gly Ala Asn Gly Phe Arg Gly  
                     20                      25                      30

Gly Tyr Asp Gly Tyr Arg Pro Ser Phe Ser Asn Thr Pro Asn Ser Gly  
                     35                      40                      45

Tyr Thr Gln Ser Gln Phe Ser Ala Pro Arg Asp Tyr Ser Gly Tyr Gln  
                     50                      55                      60

Arg Asp Gly Tyr Gln Gln Asn Phe Lys Arg Gly Ser Gly Gln Ser Gly  
                     65                      70                      75                      80

Pro Arg Gly Ala Pro Arg Gly Arg Gly Gly Pro Pro Arg Pro Asn Arg  
                     85                      90                      95

Gly Met Pro Gln Met Asn Thr Gln Gln Val Asn  
                     100                      105

<210> 281  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 281

Met Gly Thr His Pro Lys Tyr Leu Glu Met Met Glu Leu Asp Ile Gly  
 1 5 10 15

Asp Ala Thr Gln Val Tyr Val Ala Phe Leu Val Tyr Leu Asp Leu Met  
 20 25 30

Glu Ser Lys Ser Trp His Glu Val Asn Cys Val Gly Leu Pro Glu Leu  
 35 40 45

Gln Leu Ile Cys Leu Val Gly Thr Glu Ile Glu Gly Glu Gly Leu Gln  
 50 55 60

Thr Val Val Pro Asn Pro His His Cys Phe Pro Gln Pro  
 65 70 75

&lt;210&gt; 282

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 282

Met Gly Gly Thr Cys Val Leu Leu Leu Ser Ser His Thr Gln Ser Cys  
 1 5 10 15

Leu Phe Val Ser Cys Cys His Cys Gln Leu Ile Val Glu Thr Ala Ile  
 20 25 30

Ser Phe Ser Tyr Ser Ala Leu Pro Ser Ala Phe Trp Pro Leu Gln Leu  
 35 40 45

Pro

&lt;210&gt; 283

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 283

Met Asn Phe Leu Val Phe Leu Ser Leu Ser Ser Ser Leu Val Ser Ala  
 1 5 10 15

Ala Gly Pro Arg Phe Pro Ser Arg Glu Glu Arg Gly Val Gly Gly Val  
 20 25 30

Val Leu Ile Lys Ser Glu Asp Met Thr Leu Xaa Glu Arg Ser Lys Gly  
                   35                                  40                                  45

Ser Xaa  
           50

<210> 284

<211> 240

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 284

Gly Glu Gly Asp Asp Lys Glu Glu Ser Val Glu Lys Leu Asp Cys His  
           1                                  5                                  10                                  15

Tyr Ser Gly His His Pro Gln Pro Ala Ser Phe Cys Thr Phe Gly Ser  
                                   20                                  25                                  30

Arg Gln Ile Gly Arg Gly Tyr Tyr Val Phe Asp Ser Arg Trp Asn Arg  
                                   35                                  40                                  45

Leu Arg Cys Ala Leu Asn Leu Met Val Glu Lys His Leu Asn Ala Gln  
           50                                  55                                  60

Leu Trp Xaa Lys Ile Pro Pro Val Pro Ser Thr Thr Ser Pro Ile Ser  
           65                                  70                                  75                                  80

Thr Arg Ile Pro His Arg Thr Asn Ser Val Pro Thr Ser Gln Cys Gly  
                                   85                                  90                                  95

Val Ser Tyr Leu Ala Ala Ala Thr Val Ser Thr Ser Pro Val Leu Leu  
                                   100                                  105                                  110

Ser Ser Thr Cys Ile Ser Pro Asn Ser Lys Ser Val Pro Ala His Gly  
           115                                  120                                  125

Thr Thr Leu Asn Ala Gln Pro Ala Ala Ser Gly Ala Met Asp Pro Val  
           130                                  135                                  140

Cys Ser Met Gln Ser Arg Gln Val Ser Ser Ser Ser Ser Pro Ser  
           145                                  150                                  155                                  160

Thr Pro Ser Gly Leu Ser Ser Val Pro Ser Ser Pro Met Ser Arg Lys  
                                   165                                  170                                  175

Pro Gln Lys Leu Lys Ser Ser Lys Ser Leu Arg Pro Lys Glu Ser Ser  
                                   180                                  185                                  190

Gly Asn Ser Thr Asn Cys Gln Asn Ala Ser Ser Ser Thr Ser Gly Gly  
           195                                  200                                  205

Ser Gly Lys Lys Arg Lys Asn Ser Ser Pro Leu Leu Val His Ser Ser

210

215

220

Ser Ser Ser Ser Ser Ser Ser Ser Ser His Ser Met Gly Val Phe  
 225 230 235 240

&lt;210&gt; 285

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 285

Tyr Ser Met Val Tyr Met Xaa His Ile Phe Leu Ile Gln Ser Ile Ile  
 1 5 10 15

Asp Gly His Leu Gly Trp Phe Gln Val Phe Ala Ile Val Asn Ser Ala  
 20 25 30

Thr Val Asn Ile Arg Val His Val Ser Leu Trp  
 35 40

&lt;210&gt; 286

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 286

Phe Ala Xaa Xaa Asp Gly Phe Gln Leu His Pro Cys Pro Xaa Lys Gly  
 1 5 10 15

His Glu Leu Ile Xaa Phe Tyr Gly Cys Ile Val Phe His Gly Val Tyr  
20 25 30

Val Pro His Phe Leu Asn Leu Val Cys His Cys Trp Thr Phe Gly Leu  
35 40 45

Val Pro Ser Leu Cys Tyr Cys Glu  
50 55

<210> 287

<211> 75

<212> PRT

<213> Homo sapiens

<400> 287

Met Ser Trp Leu Phe Pro Ala Thr Ile Leu Phe Glu Glu Lys Ile Cys  
1 5 10 15

Phe Ser Leu Phe Pro Arg Lys Leu Val Gly Gln His Gly His Tyr Ser  
20 25 30

Ser Cys Ala Val Thr Pro Ala Pro Arg Cys Leu Glu Leu Ser Val Leu  
35 40 45

Thr Phe Met His Asp Cys Lys Ala Ser Trp Ser Ile Phe Tyr Gly Ala  
50 55 60

Ser Val Cys Phe Arg Pro Met Thr Phe Val Arg  
65 70 75

<210> 288

<211> 75

<212> PRT

<213> Homo sapiens

<400> 288

Met Ser Trp Leu Phe Pro Ala Thr Ile Leu Phe Glu Glu Lys Ile Cys  
1 5 10 15

Phe Ser Leu Phe Pro Arg Lys Leu Val Gly Gln His Gly His Tyr Ser  
20 25 30

Ser Cys Ala Val Thr Pro Ala Pro Arg Cys Leu Glu Leu Ser Val Leu  
35 40 45

Thr Phe Met His Asp Cys Lys Ala Ser Trp Ser Ile Phe Tyr Gly Ala  
50 55 60

Ser Val Cys Phe Arg Pro Met Thr Phe Val Arg  
65 70 75

<210> 289

<211> 83



&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 289

Ile Val Leu Lys Tyr Ile Met Ala Gly Cys Pro Leu Phe Leu Gly Asn  
 1 5 10 15

Leu Trp Asp Val Thr Asp Arg Asp Ile Asp Arg Tyr Thr Glu Ala Leu  
 20 25 30

Leu Gln Gly Trp Leu Gly Ser Arg Pro Arg Ala Pro Leu Leu Tyr Tyr  
 35 40 45

Val Asn Gln Ala Arg Gln Ala Pro Arg Leu Lys Tyr Leu Ile Gly Ala  
 50 55 60

Ala Pro Ile Pro Met Ala Cys Leu Ser Leu Cys Gly Asn Pro Met Glu  
 65 70 75 80

Leu Ser Tyr

&lt;210&gt; 290

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 290

Ala Trp Tyr Leu Leu Arg Val Gln Val Leu Gln Leu Val Ala Ala Tyr  
 1 5 10 15

Leu Ser Leu Pro Ser Asn Asn Leu Ser His Ser Leu Trp Glu Gln Leu  
 20 25 30

Cys Ala Gln Gly Trp Gln Thr Pro Glu Ile Ala Leu Ile Asp Ser His  
 35 40 45

Lys Leu Leu Arg Ser Ile Ile Leu Leu Leu Met Gly Ser Asp Ile Leu  
 50 55 60

Ser Thr Gln Lys Ala Ala Val Glu Thr Ser Phe Leu Asp Tyr Gly Glu  
 65 70 75 80

Asn Leu Val Gln Lys Trp Gln Val Leu Ser Glu Val Leu Ser Cys Ser  
 85 90 95

Glu Lys Leu Val Cys His Leu Gly Arg Leu Gly Ser Val Ser Glu Ala  
 100 105 110

Lys Ala Phe Cys Leu Glu Ala Leu Lys Leu Thr Thr Lys Leu Gln Ile  
 115 120 125

Pro Arg Gln Xaa Ala Leu Phe Leu Val Leu Lys Gly Glu Leu Glu Leu

130	135	140
Ala Arg Asn Asp Ile Asp Leu Cys Gln Ser Asp Leu Gln Gln Val Leu		
145	150	155 160
Phe Leu Leu Glu Ser Cys Thr Glu Phe Gly Gly Val Thr Gln His Leu		
	165	170 175
Asp Ser Val Lys Lys Val His Leu Gln Lys Gly Lys Gln Gln Ala Gln		
	180	185 190
Val Pro Cys Pro Pro Gln Leu Pro Glu Glu Glu Leu Phe Leu Arg Gly		
	195	200 205
Pro Ala Leu Glu Leu Val Pro Leu Trp Pro Arg Ser Leu Ala Pro		
210	215	220

<210> 291  
 <211> 8  
 <212> PRT  
 <213> Homo sapiens

<400> 291  
 Ala Trp Phe Leu Val Lys Pro Glu  
 1 5

<210> 292  
 <211> 223  
 <212> PRT  
 <213> Homo sapiens

<400> 292  
 Ala Trp Tyr Leu Leu Arg Val Gln Val Leu Gln Leu Val Ala Ala Tyr  
 1 5 10 15

Leu Ser Leu Pro Ser Asn Asn Leu Ser His Ser Leu Trp Glu Gln Leu  
 20 25 30

Cys Ala Gln Gly Trp Gln Thr Pro Glu Ile Ala Leu Ile Asp Ser His  
 35 40 45

Lys Leu Leu Arg Ser Ile Ile Leu Leu Leu Met Gly Ser Asp Ile Leu  
 50 55 60

Ser Thr Gln Lys Ala Ala Val Glu Thr Ser Phe Leu Asp Tyr Gly Glu  
 65 70 75 80

Asn Leu Val Gln Lys Trp Gln Val Leu Ser Glu Val Leu Ser Cys Ser  
 85 90 95

Glu Lys Leu Val Cys His Leu Gly Arg Leu Gly Ser Val Ser Glu Ala  
 100 105 110

Lys Ala Phe Cys Leu Glu Ala Leu Lys Leu Thr Thr Lys Leu Gln Ile  
 115 120 125

Pro Arg Gln Cys Ala Leu Phe Leu Val Leu Lys Gly Glu Leu Glu Leu  
 130 135 140  
 Ala Arg Asn Asp Ile Asp Leu Cys Gln Ser Asp Leu Gln Gln Val Leu  
 145 150 155 160  
 Phe Leu Leu Glu Ser Cys Thr Glu Phe Gly Gly Val Thr Gln His Leu  
 165 170 175  
 Asp Ser Val Lys Lys Val His Leu Gln Lys Gly Lys Gln Gln Ala Gln  
 180 185 190  
 Val Pro Cys Pro Pro Gln Leu Pro Glu Glu Glu Leu Phe Leu Arg Gly  
 195 200 205  
 Pro Ala Leu Glu Leu Val Pro Leu Trp Pro Arg Ser Leu Ala Pro  
 210 215 220

<210> 293  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (30)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (46)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 293  
 Ala Asp Pro Ser Pro Ser Xaa Trp Leu Gln Thr His Arg Gly Pro Arg  
 1 5 10 15  
 Leu Leu Trp Pro His His Gln Gln Leu Leu Leu Ser Phe Xaa Glu Pro  
 20 25 30  
 Arg Lys Pro Leu Ile Leu Leu Leu Pro Val Xaa Ala Pro Xaa Ser Leu  
 35 40 45  
 Lys Pro His Ser Cys Ile Pro Phe Ser Leu Asp Ile Thr Pro Pro Thr  
 50 55 60  
 Pro Trp Leu Asn Phe Leu Pro Val Val Ala Trp Ser Phe Gly His Cys  
 65 70 75 80

Pro Gly Leu Phe Leu Ser Pro Ser  
85

<210> 294  
<211> 80  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (61)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (69)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (75)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 294  
Met His His His Thr Arg Leu Val Phe Val Phe Leu Val Glu Met Gly  
1 5 10 15

Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp  
20 25 30

Leu Pro Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His  
35 40 45

Cys Ala Gln Leu Pro Phe Leu Pro Leu Lys Ser Lys Xaa Gly Trp Glu  
50 55 60

Leu Ser Pro Trp Xaa Phe Met Val Ala Lys Xaa Leu Asn Pro Val Ala  
65 70 75 80

<210> 295  
<211> 18  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 295

Met Val Ala Xaa Leu Leu Ile Leu Leu Leu Asp Ser Gly Xaa Leu Leu  
1 5 10 15

Ala Gly

<210> 296

<211> 126

<212> PRT

<213> Homo sapiens

<400> 296

Ala Thr Thr Ser Val Pro Lys Tyr Val Phe Asn Leu Asn Phe Ile Leu  
1 5 10 15

Met Cys Leu Arg Asp Glu Ser Lys Tyr Met Leu Val Thr Ser His Ser  
20 25 30

Asn Val Glu Val Gly Arg Trp Leu Pro Gly Leu Pro Ser Pro Gly Arg  
35 40 45

Ile Cys Gly Glu Gln Ser Asp Val His Pro Ser Gly Leu Phe Ser Ile  
50 55 60

Asn Asp Ser Leu Leu Asp Leu Leu Leu Leu Gly Phe Arg Ser Lys Arg  
65 70 75 80

Gly Ile Val Val Glu Asn Ala Leu Leu Gly Glu Gly Glu Pro Glu Ile  
85 90 95

His Lys Arg Arg Leu Pro Cys Ser Phe Ala Tyr Leu Ala Ala Pro Arg  
100 105 110

Leu Gly Val Arg Ile Pro Gly Phe Pro Ser Leu Leu Cys His  
115 120 125

<210> 297

<211> 26

<212> PRT

<213> Homo sapiens

<400> 297

Met Pro Val Val Leu Phe Gln Leu Trp Leu Phe Ile Leu Lys Thr Asp  
1 5 10 15

Asn Ala Phe Ala Trp Leu Lys Ile Arg Arg  
20 25

<210> 298

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 298

Pro Ser Xaa Met Leu Leu Leu Trp Ala Ser Ser Leu Pro Thr Arg Cys  
1 5 10 15

Asp Cys Ser Phe Pro Val Thr Pro Leu Val Pro Leu Val His Val Ile  
20 25 30

Cys Val Trp Val Met Phe Pro Ser Ala Ala Thr Ala Ala Cys His Pro  
35 40 45

Gly Ala Gly Ala Phe Phe Ser Gln Gly Pro Ser Pro Phe Ser Arg Thr  
50 55 60

Trp Pro Xaa Leu Gly His Arg Glu Ile Pro Ala Glu Gly Ala Gly Glu  
65 70 75 80

Thr Val Ala Leu Gly Leu Gln Pro Lys Arg His Thr Leu Ala Val Gly  
85 90 95

Val His Gly Met Leu Ala Leu Ser Thr Val Thr Val Gly Gly Phe Gly  
100 105 110

Gly Phe Pro Trp Thr Ser Gly Pro Gly Cys Pro Pro Leu Ser Trp Thr  
115 120 125

Cys Phe Ile Phe Pro Ile Leu Thr  
130 135

<210> 299

<211> 19

<212> PRT

<213> Homo sapiens

<400> 299

Gln Ile Trp Pro Phe Leu Pro Pro Ser Gln Pro Ser Gly Pro Leu Gln  
1 5 10 15

Arg Ala Val

<210> 300

<211> 133

<212> PRT

<213> Homo sapiens

&lt;400&gt; 300

Met Leu Leu Leu Trp Ala Ser Ser Leu Pro Thr Arg Cys Asp Cys Ser  
 1 5 10 15

Phe Pro Val Thr Pro Leu Val Pro Leu Val His Val Ile Cys Val Trp  
 20 25 30

Val Met Phe Pro Ser Ala Ala Thr Ala Ala Cys His Pro Gly Ala Gly  
 35 40 45

Ala Phe Phe Ser Gln Gly Pro Ser Pro Phe Ser Arg Thr Trp Pro Leu  
 50 55 60

Leu Gly His Arg Glu Ile Pro Ala Glu Gly Ala Gly Glu Thr Val Ala  
 65 70 75 80

Leu Gly Leu Gln Pro Lys Arg His Thr Leu Ala Val Gly Val His Gly  
 85 90 95

Met Leu Ala Leu Ser Thr Val Thr Val Gly Gly Phe Gly Gly Phe Pro  
 100 105 110

Trp Thr Ser Gly Pro Gly Cys Pro Pro Leu Ser Trp Thr Cys Phe Ile  
 115 120 125

Phe Pro Ile Leu Thr  
 130

&lt;210&gt; 301

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 301

Ser Ser Leu Lys Asn Gln Val Ser Val Ser Gln  
 1 5 10

&lt;210&gt; 302

&lt;211&gt; 495

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 302

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp  
 1 5 10 15

Val Leu Ser Gln Val Glu Leu Gln Glu Ser Gly Pro Gly Leu Val Lys  
 20 25 30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Val Ser Met  
 35 40 45

Ser Arg Gly Asp Trp Ser Trp Ser Trp Val Arg Gln Val Pro Gly Lys  
 50 55 60

Gly Leu Glu Trp Ile Gly His Ile Asp Tyr Thr Gly Lys Thr Asp Tyr  
 65 70 75 80  
 Lys Ser Ser Leu Lys Asn Gln Val Ser Ile Ser Gln Asp Thr Ala Lys  
 85 90 95  
 Asn Gln Phe Phe Leu Arg Val Glu Ser Val Thr Ala Ala Asp Thr Ala  
 100 105 110  
 Val Tyr Phe Cys Ala Arg Leu Phe Glu Ser Ser Gly Tyr Gly Ala Trp  
 115 120 125  
 Leu Asp Pro Trp Gly Pro Gly Ile Leu Val Thr Val Ser Ser Ala Ser  
 130 135 140  
 Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr Gln Pro  
 145 150 155 160  
 Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe Pro Gln  
 165 170 175  
 Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val Thr Ala  
 180 185 190  
 Arg Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr  
 195 200 205  
 Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly Lys Ser  
 210 215 220  
 Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp Val Thr  
 225 230 235 240  
 Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser Thr  
 245 250 255  
 Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser Leu His  
 260 265 270  
 Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr  
 275 280 285  
 Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe Thr Trp  
 290 295 300  
 Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp Arg Asp  
 305 310 315 320  
 Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala Glu  
 325 330 335  
 Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr Pro Glu  
 340 345 350  
 Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn Thr Phe  
 355 360 365  
 Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu  
 370 375 380



Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys  
 385 390 395 400  
 Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu  
 405 410 415  
 Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr  
 420 425 430  
 Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys  
 435 440 445  
 Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro Leu  
 450 455 460  
 Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His  
 465 470 475 480  
 Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys Tyr  
 485 490 495

&lt;210&gt; 303

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 303

Pro Tyr Glu Cys Lys Glu Cys Xaa Lys Ala Phe Arg Val His Val His  
 1 5 10 15

Leu Thr Gln His Arg Lys Ile His Thr Asp Val Lys Pro Tyr Glu Cys  
 20 25 30

Lys Glu Cys Gly Lys Thr Phe Ser Arg Ala Ser Tyr Leu Val Gln His  
 35 40 45

Ser Arg Ile His Thr Gly Lys Lys Pro Tyr Glu Cys Lys Glu Cys Gly  
 50 55 60

Lys Ala Phe Ser Ser Gly Ser Tyr Leu Val Gln His Gln Arg Ile His  
 65 70 75 80

Thr Gly Glu Arg Pro Tyr Trp Leu Thr Tyr  
 85 90

&lt;210&gt; 304

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

<221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 304  
 Gln Arg Ile His Xaa Gly Glu Lys Pro Tyr Glu Cys Asn Lys Cys Gly  
   1                  5                  10                  15  
 Lys Ala Phe Thr Val Tyr Gly Gln Leu Ile Gly His Gln Ser Val His  
                   20                  25                  30  
 Thr Gly Glu Lys Pro Phe Glu Cys Lys Glu Cys Gly Lys Ala Phe Arg  
                   35                  40                  45  
 Leu Asn Ser Phe Leu Thr Glu His Gln Arg Val His Thr Gly Glu Lys  
                   50                  55                  60  
 Pro Phe Lys Cys Lys Lys Cys Gly Lys Thr Phe Arg Tyr Ser Ser Ala  
   65                  70                  75                  80  
 Leu Lys Val His Leu Arg Lys His Met Ser Val Ile Pro  
                   85                  90

<210> 305  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 305  
 Met Trp Val Cys Ser Ile Thr Asp Gln  
   1                  5

<210> 306  
 <211> 264  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (88)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (170)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (171)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 306

Thr Trp Gly Lys Xaa Lys Xaa Pro Phe Ile Glu Ser Xaa Pro Gly Gly  
 1 5 10 15

Lys Ile Gly Trp Gly Lys Lys Gly Leu Phe Phe Leu Lys Val Asn Tyr  
 20 25 30

Trp Gly Lys Lys Ala Phe Asn Pro Arg Gly His Ser Lys Lys Val Thr  
 35 40 45

Phe His Gln Leu Gly Leu Lys Lys Asn Pro Phe Trp Gly Leu Xaa Lys  
 50 55 60

Glu Val Leu Gly Lys Ala Phe Ser Thr Phe Ser Tyr Leu Val Gln His  
 65 70 75 80

Gln Arg Ile His Thr Ser Glu Xaa Pro Tyr Glu Cys Lys Glu Cys Gly  
 85 90 95

Lys Ala Phe Ser Thr Ser Ser Pro Leu Ala Lys His Gln Arg Ile His  
 100 105 110

Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ser Phe Thr  
 115 120 125

Val Tyr Gly Gln Leu Thr Arg His Gln Ser Ile His Thr Gly Glu Lys  
 130 135 140

Pro Phe Glu Cys Lys Glu Cys Gly Lys Ala Phe Arg Leu Ser Ser Phe  
 145 150 155 160

Leu His Ala His Gln Arg Ile His Ala Xaa Xaa Lys Pro Tyr Gly Cys  
 165 170 175

Lys Glu Cys Gly Lys Thr Phe Ser Arg Ala Ser Tyr Leu Val Gln His  
 180 185 190

Gly Arg Leu His Thr Gly Glu Lys Pro Cys Glu Cys Lys Glu Cys Gly  
 195 200 205

Lys Ala Phe Ser Thr Gly Ser Tyr Leu Val Gln His Gln Arg Ile His  
 210 215 220

Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ile

225                      230                      235                      240  
Ser Arg His Gln Leu Thr Val His Gln Arg Val His Thr Gly Glu Lys  
                         245                      250                      255  
Pro Tyr Lys Cys Lys Glu Glu Gly  
                         260

<210> 307  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 307  
Met Trp Val Cys Ser Ile Thr Asp Gln  
      1                      5

<210> 308  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 308  
Leu Thr Tyr Leu Ala His Leu Leu Cys Phe  
      1                      5                      10

<210> 309  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 309  
Met Cys Ser Leu Ser Ser Glu His Leu Ala  
      1                      5                      10

<210> 310  
<211> 465  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 310

Asn Arg Arg Asn Gly Ala Ser Gln Ile Thr Trp Cys Ser Gly Gln Xaa  
 1 5 10 15

Lys Ser Ser Lys Trp Ala Arg Glu Ile Gly Xaa Tyr Gln Thr Gly Val  
 20 25 30

Tyr Gln Pro Gly Trp Gly Pro Gln Arg His Ala Xaa Gly Glu Ile Ala  
 35 40 45

Thr Arg Ala Ile Ser Met Leu Ala Ile Leu Thr Gly Asn Val Gly Ile  
 50 55 60

Asn Gly Gly Asn Ser Gly Ala Arg Glu Gly Ser Tyr Ser Leu Pro Phe  
 65 70 75 80

Val Arg Met Pro Thr Leu Glu Asn Pro Ile Gln Thr Ser Ile Ser Met  
 85 90 95

Phe Met Trp Thr Asp Ala Ile Glu Arg Gly Pro Glu Met Thr Ala Leu  
 100 105 110

Arg Asp Gly Val Arg Gly Lys Asp Lys Leu Asp Val Pro Ile Lys Met  
 115 120 125

Ile Trp Asn Tyr Ala Gly Asn Cys Leu Ile Asn Gln His Ser Glu Ile  
 130 135 140

Asn Arg Thr His Glu Ile Leu Gln Asp Asp Lys Lys Cys Glu Leu Ile  
 145 150 155 160

Val Val Ile Asp Cys His Met Thr Ser Ser Ala Lys Tyr Ala Asp Ile  
 165 170 175

Leu Leu Pro Asp Cys Thr Ala Ser Glu Gln Met Asp Phe Ala Leu Asp  
 180 185 190

Ala Ser Cys Gly Asn Met Ser Tyr Val Ile Phe Asn Asp Gln Val Ile  
 195 200 205

Lys Pro Arg Phe Glu Cys Lys Thr Ile Tyr Glu Met Thr Ser Glu Leu  
 210 215 220

Ala Lys Arg Leu Gly Val Glu Gln Gln Phe Thr Glu Gly Arg Thr Gln  
 225 230 235 240

Glu Glu Trp Met Arg His Leu Tyr Ala Gln Ser Arg Glu Ala Ile Pro  
 245 250 255

Glu Leu Pro Thr Phe Glu Glu Phe Arg Lys Gln Gly Ile Phe Lys Lys  
 260 265 270

Arg Asp Pro Gln Gly His His Val Ala Tyr Lys Ala Phe Arg Glu Asp  
 275 280 285

Pro Gln Ala Asn Pro Leu Thr Thr Pro Ser Gly Lys Ile Glu Ile Tyr  
 290 295 300

Ser Gln Ala Leu Ala Asp Ile Ala Ala Thr Trp Glu Leu Pro Glu Gly  
 305 310 315 320  
 Asp Val Ile Asp Pro Leu Pro Ile Tyr Thr Pro Gly Phe Glu Ser Tyr  
 325 330 335  
 Gln Asp Pro Leu Asn Lys Gln Tyr Pro Leu Gln Leu Thr Gly Phe His  
 340 345 350  
 Tyr Lys Ser Arg Val His Ser Thr Tyr Gly Asn Val Asp Val Leu Lys  
 355 360 365  
 Ala Ala Cys Arg Gln Glu Met Trp Ile Asn Pro Leu Asp Ala Gln Lys  
 370 375 380  
 Arg Gly Ile His Asn Gly Asp Lys Val Arg Ile Phe Asn Asp Arg Gly  
 385 390 395 400  
 Glu Val His Ile Glu Ala Lys Val Thr Pro Arg Met Met Pro Gly Val  
 405 410 415  
 Val Ala Leu Gly Glu Gly Ala Trp Tyr Asp Pro Asp Ala Lys Arg Val  
 420 425 430  
 Asp Lys Gly Gly Cys Ile Asn Val Leu Thr Thr Gln Arg Pro Ser Pro  
 435 440 445  
 Leu Ala Lys Gly Asn Pro Ser His Thr Asn Leu Val Gln Val Glu Lys  
 450 455 460  
 Val  
 465

<210> 311  
 <211> 185  
 <212> PRT  
 <213> Homo sapiens

<400> 311  
 Met Ala Gln Ala Asn Ser Thr Leu Gly Ala Gly Gly Trp Val Gly Asn  
 1 5 10 15  
 Gly Val Tyr Val Ser Gly Val Gln Arg Glu Tyr Asp Ala Phe Ile Thr  
 20 25 30  
 Asn Gln Leu Arg Ala Ala Gln Thr Gln Ser Ser Gly Leu Thr Ala Arg  
 35 40 45  
 Tyr Glu Gln Met Ser Lys Ile Asp Asn Met Leu Ser Thr Ser Thr Ser  
 50 55 60  
 Ser Leu Ala Thr Gln Met Gln Asp Phe Phe Thr Ser Leu Gln Thr Leu  
 65 70 75 80  
 Val Ser Asn Ala Glu Asp Pro Ala Ala Arg Gln Ala Leu Ile Gly Lys  
 85 90 95

Ser Glu Gly Leu Val Asn Gln Phe Lys Thr Thr Asp Gln Tyr Leu Arg  
 100 105 110

Asp Gln Asp Lys Gln Val Asn Ile Ala Ile Gly Ala Ser Val Asp Gln  
 115 120 125

Ile Asn Asn Tyr Ala Lys Gln Ile Ala Ser Leu Asn Asp Gln Ile Ser  
 130 135 140

Arg Leu Thr Gly Val Gly Ala Gly Ala Ser Pro Asn Asn Leu Leu Asp  
 145 150 155 160

Gln Arg Asp Gln Leu Gly Glu Arg Ile Lys Pro Asp Cys Trp Cys Arg  
 165 170 175

Ser Gln Arg Ser Gly Trp Arg His Leu  
 180 185

<210> 312  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 312  
 Met Ser His Cys Ala Trp Pro Pro Leu Leu Ile Phe Ile Thr Arg Val  
 1 5 10 15

Gln Trp Ala Thr Ala Thr Lys Cys Gln Phe Thr Ala Lys Ser Gly Ile  
 20 25 30

Gly Leu Thr Gln Gly Cys Ser Ser Val Phe Val Lys Leu Gly Leu Phe  
 35 40 45

Leu Ile Cys Pro Tyr Asp Trp Glu  
 50 55

<210> 313  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 313  
 Met Ser His Cys Ala Trp Pro Pro Leu Leu Ile Phe Ile Thr Arg Val  
 1 5 10 15

Gln Trp Ala Thr Ala Thr Lys Cys Gln Phe Thr Ala Lys Ser Gly Ile  
 20 25 30

Gly Leu Thr Gln Gly Cys Ser Ser Val Phe Val Lys Leu Gly Leu Phe  
 35 40 45

Leu Ile Cys Pro Tyr Asp Trp Glu  
 50 55

<210> 314  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 314  
 Leu Pro Ala Arg Leu Leu Gln Arg Ser Pro Arg Arg Cys Arg Arg Arg  
           1                  5                  10                  15  
 Arg Val Pro Ser Pro Ser Leu Ala His Val Gly Arg Arg Val Gln Pro  
                   20                  25                  30  
 Cys Tyr Ser Arg Ala Pro Pro Leu Ser Ser  
                   35                  40

<210> 315  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens.

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 315  
 Met Ala Ala Leu Leu Leu Xaa Pro Leu Leu Leu Leu Leu Pro Leu Leu  
           1                  5                  10                  15  
 Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Ala  
                   20                  25                  30  
 Thr Ala Ala Arg Gly Ala Leu Glu Lys Ala Ser Gly Gln Arg Arg Glu  
                   35                  40                  45  
 Pro Glu Met Gln Arg Pro Glu Ala Ala Arg Ser Leu Pro Glu Gly Thr  
                   50                  55                  60  
 Val Pro Pro Glu Val Glu Glu Pro Pro Pro Leu Cys His Leu Glu Gln  
                   65                  70                  75                  80  
 Leu Trp Arg Cys Ser Ser Pro Leu Ala Gln Ser Phe Cys Gly Ser Gly  
                           85                  90                  95  
 Ser Gly Trp Pro Arg Pro Ala Cys Ala Leu Pro Leu Cys Pro Pro Pro  
                   100                  105                  110  
 Cys Ala Gly Ala Pro Cys Cys Thr Ala Ser Ala Ala Ala Ala Arg Ala  
                   115                  120                  125  
 Arg Trp Cys Trp Arg Gln Ser Phe Trp Ser Pro Trp Ser Arg Thr Cys  
                   130                  135                  140  
 Pro Pro  
 145



<210> 316  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (151)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (161)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (164)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 316  
 Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Leu Pro Leu Leu  
     1                    5                    10                    15  
 Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Asp  
                     20                    25                    30  
 Leu Ala Phe Ala Val Arg Ala Leu Cys Cys Lys Arg Ala Leu Arg Ala  
             35                    40                    45  
 Arg Ala Leu Ala Ala Ala Ala Ala Asp Pro Glu Gly Pro Glu Gly Gly  
     50                    55                    60  
 Cys Ser Leu Ala Trp Arg Leu Ala Glu Leu Ala Gln Gln Arg Ala Ala  
     65                    70                    75                    80  
 His Thr Phe Leu Ile His Gly Ser Arg Arg Phe Ser Tyr Ser Glu Ala  
                     85                    90                    95  
 Glu Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly  
             100                    105                    110  
 Trp Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly  
     115                    120                    125  
 Glu Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ser Gly Arg Lys  
     130                    135                    140  
 Arg Arg Gly Val Cys Arg Xaa Gly Thr Val Pro Pro Glu Gly Gly Arg  
     145                    150                    155                    160  
 Xaa Pro Pro Xaa Pro Phe Val Thr Leu Glu Ala Asn Cys Gly  
                     165                    170

<210> 317  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (78)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 317

Gln	Trp	Gly	Gly	Gly	Gln	Leu	Met	Glu	Leu	Val	Pro	Leu	Xaa	Cys	Ala
1				5					10					15	

Phe	Pro	Gly	Val	Gly	Ser	Trp	Gly	Trp	Glu	Gln	Gly	Lys	Ala	Ala	Ser
		20					25						30		

Ser	Leu	Gly	Phe	Leu	Leu	Cys	Leu	Pro	Arg	Val	Ala	Ala	Asn	Pro	Val
		35					40					45			

Pro	Ala	Gly	Gly	Ala	Gly	Met	Ala	Ser	Cys	Pro	Gly	Leu	Trp	Gln	Glu
	50					55					60				

Thr	Leu	Phe	Pro	Leu	Pro	Val	Gly	Leu	Pro	Arg	Leu	Ser	Xaa	Pro	Phe
65					70					75				80	

Ser	His	Lys	Lys	Ile	Trp	Gly	Gln	Ala	Arg	Trp	Leu	Thr	Pro	Val	Ile
			85						90					95	

Pro	Ala	Leu	Trp	Glu	Ala	Glu	Ala	Gly	Ser	His	Lys	Val	Arg	Arg	Ser
		100						105					110		

Gly	Pro	Ser	Trp	Leu	Ile	Arg
						115

&lt;210&gt; 318

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 318

Met	Ala	Ala	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Pro	Leu	Leu
1				5					10				15	

Leu	Leu	Lys	Leu	His	Leu	Trp	Pro	Gln	Leu	Arg	Trp	Leu	Pro	Ala	Asp
		20						25					30		

Leu	Ala	Phe	Ala	Val	Arg	Ala	Leu	Cys	Cys	Lys	Arg	Ala	Leu	Arg	Ala
		35					40					45			

Arg	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asp	Pro	Glu	Gly	Pro	Glu	Gly	Gly
	50					55					60				

Cys	Ser	Leu	Ala	Trp	Arg	Leu	Ala	Glu	Leu	Ala	Gln	Gln	Arg	Ala	Ala
65					70					75				80	

His	Thr	Phe	Leu	Ile	His	Gly	Ser	Arg	Arg	Phe	Ser	Tyr	Ser	Glu	Ala
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

	85		90		95
Glu Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly					
	100		105		110
Trp Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly					
	115		120		125
Glu Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser					
	130		135		140
Gly Ala Glu Phe Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala					
	145		150		155
Ala Ala Leu Cys His Leu Glu Gln Leu Trp Arg Cys Ser Ser Pro Leu					
		165		170	175
Ala Gln Ser Phe Cys Gly Ser Gly Ser Gly Trp Pro Arg Pro Ala Cys					
	180		185		190
Ala Leu Pro Leu Cys Pro Pro Pro Cys Ala Gly Ala Pro Cys Cys Thr					
	195		200		205
Ala Ser Ala Ala Ala Ala Arg Ala Arg Trp Cys Trp Arg Gln Ser Phe					
	210		215		220
Trp Ser Pro Trp Ser Arg Thr Cys Pro Pro					
	225		230		

&lt;210&gt; 319

&lt;211&gt; 683

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 319

Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Pro Leu Leu					
1		5		10	15
Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Asp					
	20		25		30
Leu Ala Phe Ala Val Arg Ala Leu Cys Cys Lys Arg Ala Leu Arg Ala					
	35		40		45
Arg Ala Leu Ala Ala Ala Ala Ala Asp Pro Glu Gly Pro Glu Gly Gly					
	50		55		60
Cys Ser Leu Ala Trp Arg Leu Ala Glu Leu Ala Gln Gln Arg Ala Ala					
	65		70		75
His Thr Phe Leu Ile His Gly Ser Arg Arg Phe Ser Tyr Ser Glu Ala					
	85		90		95
Glu Arg Glu Ser Asn Arg Ala Ala Arg Ala Phe Leu Arg Ala Leu Gly					
	100		105		110
Trp Asp Trp Gly Pro Asp Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly					
	115		120		125

Glu Gly Glu Arg Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser  
 130 135 140  
 Gly Ala Glu Phe Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala  
 145 150 155 160  
 Ala Ala Pro Leu Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala  
 165 170 175  
 Gly Pro Glu Phe Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu  
 180 185 190  
 Arg Thr Ala Phe Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His  
 195 200 205  
 Cys Leu Arg Ser Cys Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe  
 210 215 220  
 Leu Glu Ser Leu Glu Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu  
 225 230 235 240  
 His Leu Trp Ala Ala Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp  
 245 250 255  
 Leu Leu Ala Glu Val Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr  
 260 265 270  
 Leu Ser Ser Pro Gln Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr  
 275 280 285  
 Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys  
 290 295 300  
 Ile Leu Gln Cys Gln Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu  
 305 310 315 320  
 Asp Val Ile Tyr Leu Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu  
 325 330 335  
 Leu Gly Ile Val Gly Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys  
 340 345 350  
 Ser Lys Phe Ser Ala Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg  
 355 360 365  
 Val Thr Val Phe Gln Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn  
 370 375 380  
 Gln Pro Pro Ser Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val  
 385 390 395 400  
 Gly Ser Gly Leu Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe  
 405 410 415  
 Gly Pro Leu Gln Val Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val  
 420 425 430  
 Ala Thr Ile Asn Tyr Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser  
 435 440 445

Trp Leu Tyr Lys His Ile Phe Pro Phe Ser Leu Ile Arg Tyr Asp Val  
 450 455 460  
 Thr Thr Gly Glu Pro Ile Arg Asp Pro Gln Gly His Cys Met Ala Thr  
 465 470 475 480  
 Ser Pro Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser Gln Gln Ser  
 485 490 495  
 Pro Phe Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala Gln Gly Lys Leu  
 500 505 510  
 Leu Lys Asp Val Phe Arg Pro Gly Asp Val Phe Phe Asn Thr Gly Asp  
 515 520 525  
 Leu Leu Val Cys Asp Asp Gln Gly Phe Leu Arg Phe His Asp Arg Thr  
 530 535 540  
 Gly Asp Thr Phe Arg Trp Lys Gly Glu Asn Val Ala Thr Thr Glu Val  
 545 550 555 560  
 Ala Glu Val Phe Glu Ala Leu Asp Phe Leu Gln Glu Val Asn Val Tyr  
 565 570 575  
 Gly Val Thr Val Pro Gly His Glu Gly Arg Ala Gly Met Ala Ala Leu  
 580 585 590  
 Val Leu Arg Pro Pro His Ala Leu Asp Leu Met Gln Leu Tyr Thr His  
 595 600 605  
 Val Ser Glu Asn Leu Pro Pro Tyr Ala Arg Pro Arg Phe Leu Arg Leu  
 610 615 620  
 Gln Glu Ser Leu Ala Thr Thr Glu Thr Phe Lys Gln Gln Lys Val Arg  
 625 630 635 640  
 Met Ala Asn Glu Gly Phe Asp Pro Ser Thr Leu Ser Asp Pro Leu Tyr  
 645 650 655  
 Val Leu Asp Gln Ala Val Gly Ala Tyr Leu Pro Leu Thr Thr Ala Arg  
 660 665 670  
 Tyr Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile  
 675 680

&lt;210&gt; 320

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (157)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 320

Met Gly Pro Arg Phe Thr Met Leu Leu Ala Met Trp Leu Val Cys Gly

Met	Thr	Trp	Arg	Met	Gly	Pro	Arg	Phe	Thr	Met	Leu	Leu	Ala	Met	Trp
1				5					10					15	
Leu	Val	Cys	Gly	Ser	Glu	Pro	His	Pro	His	Ala	Thr	Ile	Arg	Gly	Ser
			20					25					30		
His	Gly	Gly	Arg	Lys	Val	Pro	Leu	Val	Ser	Pro	Asp	Ser	Ser	Arg	Pro
		35					40					45			
Ala	Arg	Phe	Leu	Arg	His	Thr	Gly	Arg	Ser	Arg	Gly	Ile	Glu	Arg	Ser
	50					55					60				
Thr	Leu	Glu	Glu	Pro	Asn	Leu	Gln	Pro	Leu	Gln	Arg	Arg	Arg	Ser	Val
65					70					75					80
Pro	Val	Leu	Arg	Leu	Ala	Arg	Pro	Thr	Glu	Pro	Pro	Ala	Arg	Ser	Asp
				85					90					95	
Ile	Asn	Gly	Ala	Ala	Val	Arg	Pro	Glu	Gln	Arg	Pro	Ala	Ala	Arg	Gly
			100					105					110		

Ser Pro Arg Glu Met Ile Arg Asp Glu Gly Ser Ser Ala Arg Ser Arg  
 115 120 125  
 Met Leu Arg Phe Pro Ser Gly Ser Ser Ser Pro Asn Ile Leu Ala Ser  
 130 135 140  
 Phe Ala Gly Lys Asn Arg Val Trp Val Ile Ser Ala Pro His Ala Ser  
 145 150 155 160  
 Glu Gly Tyr Tyr Arg Leu Met Met Ser Leu Leu Lys Asp Asp Val Tyr  
 165 170 175  
 Cys Glu Leu Ala Glu Arg His Ile Gln Gln Ile Val Leu Phe His Gln  
 180 185 190  
 Ala Gly Glu Glu Gly Gly Lys Val Arg Arg Ile Thr Ser Glu Gly Gln  
 195 200 205  
 Ile Leu Glu Gln Pro Leu Asp Pro Ser Leu Ile Pro Lys Leu Met Ser  
 210 215 220  
 Phe Leu Lys Leu Glu Lys Gly Lys Phe Gly Met Val Leu Leu Lys Lys  
 225 230 235 240  
 Thr Leu Gln Val Glu Glu Arg Tyr Pro Tyr Pro Val Arg Leu Glu Ala  
 245 250 255  
 Met Tyr Glu Val Ile Asp Gln Gly Pro Ile Arg Arg Ile Glu Lys Ile  
 260 265 270  
 Arg Gln Lys Gly Phe Val Gln Lys Cys Lys Ala Ser Gly Val Glu Gly  
 275 280 285  
 Gln Val Val Ala Glu Gly Asn Asp Gly Gly Gly Gly Ala Gly Arg Pro  
 290 295 300  
 Ser Leu Gly Ser Glu Lys Lys Lys Glu Asp Pro Arg Arg Ala Gln Val  
 305 310 315 320  
 Pro Pro Thr Arg Glu Ser Arg Val Lys Val Leu Arg Lys Leu Ala Ala  
 325 330 335  
 Thr Ala Pro Ala Phe Pro Gln Pro Pro Ser Thr Pro Arg Ala Thr Thr  
 340 345 350  
 Leu Pro Pro Ala Pro Ala Thr Thr Val Thr Arg Ser Thr Ser Arg Ala  
 355 360 365  
 Val Thr Val Ala Ala Arg Pro Met Thr Thr Thr Ala Phe Pro Thr Thr  
 370 375 380  
 Gln Arg Pro Trp Thr Pro Ser Pro Ser His Arg Pro Pro Thr Thr Thr  
 385 390 395 400  
 Glu Val Ile Thr Ala Arg Arg Pro Ser Val Ser Glu Asn Leu Tyr Pro  
 405 410 415  
 Pro Ser Arg Lys Asp Gln His Arg Glu Arg Pro Gln Thr Thr Arg Arg  
 420 425 430

Pro Ser Lys Ala Thr Ser Leu Glu Ser Phe Thr Asn Ala Pro Pro Thr  
 435 440 445

Thr Ile Ser Glu Pro Ser Thr Arg Ala Ala Gly Pro Gly Arg Phe Arg  
 450 455 460

Asp Asn Arg Met Asp Arg Arg Glu His Gly His Arg Asp Pro Asn Val  
 465 470 475 480

Val Pro Gly Pro Pro Lys Pro Ala Lys Glu Lys Pro Pro Lys Lys Lys  
 485 490 495

Ala Gln Asp Lys Ile Leu Ser Asn Glu Tyr Glu Glu Val  
 500 505

&lt;210&gt; 322

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 322

Pro Pro His Leu Xaa Ser Phe Glu Phe Leu Lys Asn Val Gln Leu Arg  
 1 5 10 15

Pro Asp Thr Val Ala His Thr Cys Asp Pro Gly Thr Leu Gly Gly Arg  
 20 25 30

Gly Trp Trp Ile Thr Gly Ser Gly Asp Arg Asp Ile Leu Ala Asn Thr  
 35 40 45

Val Lys Arg Arg Leu Tyr Arg Lys Cys Arg Arg Leu Ala Gly His Gly  
 50 55 60

Gly Gly Arg Leu  
 65

&lt;210&gt; 323

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 323

Met Pro Asn Gln Phe Trp Lys Leu His Ile Leu Leu Phe Leu Leu Phe  
 1 5 10 15

Phe Leu Phe Pro Leu Val Gln Leu Cys Ile Phe Ile Leu Ile Ser Asn  
 20 25 30

Lys Glu Lys Lys Asn Val Cys Thr Leu Arg Lys Thr Tyr Ile Val Arg  
 35 40 45



His Phe Leu Trp Leu Arg Ser Phe Gln Val  
 50 55

<210> 324  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 324  
 Met Gln Val Phe Ser Ala Leu Leu Tyr Ser Leu Met His Phe Tyr Leu  
 1 5 10 15

Pro Ser Phe Thr Leu Glu Met Tyr Leu Asn Thr Leu Leu Ser His Asp  
 20 25 30

Leu Leu Ser Phe Phe His Cys Ser Gly Leu Val Phe Phe Val Tyr Phe  
 35 40 45

Lys Ser Val Thr Gly Leu Phe Ser Gly Val  
 50 55

<210> 325  
 <211> 1  
 <212> PRT  
 <213> Homo sapiens

<400> 325  
 Ile  
 1

<210> 326  
 <211> 7  
 <212> PRT  
 <213> Homo sapiens

<400> 326  
 Ile Phe Thr Cys Val Leu Tyr  
 1 5

<210> 327  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 327  
 Gln Thr Val Ser Ala Phe Leu Pro Pro Leu Phe Tyr Val Thr Phe Xaa

1                      5                      10                      15  
 Leu Gly Lys Ile Asn Tyr Thr Lys Tyr His Ile Ile Pro Ser Tyr Lys  
                     20                      25                      30

Leu Leu Pro Glu Asn Lys Ser Cys Val  
                     35                      40

<210> 328  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 328  
 Met Gln Val Phe Ser Ala Leu Leu Tyr Ser Leu Met His Phe Tyr Leu  
                     1                      5                      10                      15

Pro Ser Phe Thr Leu Glu Met Tyr Leu Asn Thr Leu Leu Ser His Asp  
                     20                      25                      30

Leu Leu Ser Phe Phe His Cys Ser Gly Leu Val Phe Phe Val Tyr Phe  
                     35                      40                      45

Lys Ser Val Thr Gly Leu Phe Ser Gly Val  
                     50                      55

<210> 329  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 329  
 Met Met Pro Ala Tyr Pro Xaa Leu Leu Ala Trp Ile Leu Phe  
                     1                      5                      10

<210> 330  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 330  
 Ala Trp Ser His Leu Ser Ile Leu Leu Asn Tyr Lys Leu Gln Arg Gln  
                     1                      5                      10                      15

Glu Trp His Leu Phe Thr Tyr Phe Glu Phe Val Cys Asn Cys Leu Asp  
                     20                      25                      30

<210> 331  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<400> 331

Met Glu Pro Ser Leu Val His Ile Leu Val Trp Val Ser Val Pro Pro  
 1 5 10 15

Leu Phe Leu Cys Leu Thr His Ser Arg Ser Ile Asn His Asn Gln Asp  
 20 25 30

Gly Leu Asn Leu Thr Pro Leu Leu Gln Met Pro His Gln Leu Thr Asp  
 35 40 45

Ala Ser Gly Val Ile Lys Ala Pro Ala Cys His Pro Thr Val Asn Thr  
 50 55 60

Asn Pro His Lys Glu Asn Glu His Ala Phe Leu Phe Ala Gly Cys Cys  
 65 70 75 80

Thr His Ser Leu Asn Arg Val Gly Thr Trp Val Pro Pro Leu Phe Lys  
 85 90 95

Val Phe Arg Phe Leu Leu Arg Gly Thr Ser Ala Ile Ala Thr Phe Ser  
 100 105 110

Gly His Phe Phe Ser Asp Glu Ala Phe Tyr Pro Gly Glu Pro Gly Arg  
 115 120 125

Leu Gln Gly Asn Gly Val Pro Trp Gln Leu Thr Val Thr Gly Gln Gly  
 130 135 140

Phe Asp Tyr Asp Lys Glu Asp Lys Arg Arg Glu Ala Pro His Gly Leu  
 145 150 155 160

Trp Leu Gln His Tyr Arg Ala Ala Arg Asp Pro Arg Ala Trp Val Ser  
 165 170 175

Trp Trp Ser Thr Phe Cys Asp Pro Gly Glu Glu Pro  
 180 185

<210> 332  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

<400> 332

Met Glu Pro Ser Leu Val His Ile Leu Val Trp Val Ser Val Pro Pro  
 1 5 10 15

Leu Phe Leu Cys Leu Thr His Ser Arg Ser Ile Asn His Asn Gln Asp  
 20 25 30

Gly Leu Asn Leu Thr Pro Leu Leu Gln Met Pro His Gln Leu Thr Asp

35

40

45

Ala Ser Gly Val Ile Lys Ala Pro Ala Cys His Pro Thr Val Asn Thr  
50 55 60

Asn Pro His Lys Glu Asn Glu His Ala Phe Leu Phe Ala Gly Cys Cys  
65 70 75 80

Thr His Ser Leu Asn Arg Val Gly Thr Trp Val Pro Pro Leu Phe Lys  
85 90 95

Val Phe Arg Phe Leu Leu Arg Gly Thr Ser Ala Ile Ala Thr Phe Ser  
100 105 110

Gly His Phe Phe Ser Asp Glu Ala Phe Tyr Pro Gly Glu Pro Gly Arg  
115 120 125

Leu Gln Gly Asn Gly Val Pro Trp Gln Leu Thr Val Thr Gly Gln Gly  
130 135 140

Phe Asp Tyr Asp Lys Glu Asp Lys Arg Arg Glu Ala Pro His Gly Leu  
145 150 155 160

Trp Leu Gln His Tyr Arg Ala Ala Arg Asp Pro Arg Ala Trp Val Ser  
165 170 175

Trp Trp Ser Thr Phe Cys Asp Pro Gly Glu Glu Pro  
180 185

&lt;210&gt; 333

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 333

Met Leu Cys Val Cys Val Leu Trp Met Phe Thr Val Pro Gly Ser Arg  
1 5 10 15

Lys Asp Val Gly Glu Ala Ala Pro Ala Ser Gly Thr Gly Gln Glu Cys  
20 25 30

Arg Met His Gly Ser Trp Ser Gly Arg Ser Leu Gly  
35 40

&lt;210&gt; 334

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 334

Met Leu Cys Val Cys Val Leu Trp Met Phe Thr Val Pro Gly Ser Arg  
1 5 10 15

Lys Asp Val Gly Glu Ala Ala Pro Ala Ser Gly Thr Gly Gln Glu Cys  
20 25 30

Arg Met His Gly Ser Trp Ser Gly Arg Ser Leu Gly  
           35                          40

<210> 335  
 <211> 249  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (147)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (150)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (196)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (222)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 335  
 Met Val Cys Val Phe Met Cys Ile Val Gly Val Cys Val Ala Cys Cys  
   1                  5                  10                  15

Ala Cys Val Tyr Cys Gly Cys Leu Leu Ser Arg Ala Val Glu Arg Thr  
                   20                  25                  30

Ser Gly Lys Gln Pro Gln His Gln Gly Gln Ala Arg Ser Ala Glu Cys  
           35                  40                  45

Met Glu Ala Gly Gln Val Gly Ala Trp Asp Glu Gly Ser Thr Glu Met  
   50                  55                  60

Gln Gly Cys Gln Gly Pro Trp Asn Gln Glu Pro Met Ile Lys Ala Thr  
   65                  70                  75                  80

Val His Thr Ala Leu Glu Ala Lys Asp Ile Phe Ile Ser Gln Gly Leu  
                   85                  90                  95

Lys Ser Met Gly Gln Gly Trp Ala Pro Gly Gln Asp Trp Gly Tyr Arg  
           100                  105                  110

Val Asp Gln Ser Pro Ser Leu Pro Pro Gly Ala Tyr Pro His Pro Phe  
           115                  120                  125

Thr Ser Gln Val Ser Pro Pro Gln Pro Leu Gly Glu Leu Leu Ile  
   130                  135                  140

Pro Gln Xaa Val Ala Xaa Val Thr Leu Leu Pro Glu Ala Ser Pro His  
   145                  150                  155                  160

Pro Leu Lys His Pro Leu Pro Ala Ala His Leu Gln His Ser Gln Arg  
 165 170 175  
 Ala Pro Trp Pro Val Ser Thr Gly Leu Ser Leu Leu Gly Gly Ala Gly  
 180 185 190  
 Ala Glu Gln Xaa Pro Gly Leu Gly Val Pro Ala Pro Arg Ser Thr Pro  
 195 200 205  
 Ser Pro Thr Ala Ser Leu Phe Asn Leu Arg Gln Ala Val Xaa Leu Leu  
 210 215 220  
 Ser Leu Thr Phe Pro Leu Cys Lys Met Arg Glu Gly Thr Ala Pro Ser  
 225 230 235 240  
 Lys Pro Ser Phe Ser Leu Lys Pro Leu  
 245

<210> 336  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 336  
 Met Lys Ile Val Thr Thr Leu Tyr Cys Leu Phe Val Phe Leu Leu Asn  
 1 5 10 15  
 Cys Phe Gly Val Gly Gly Ser Cys Ile Phe Leu Ser Asn Arg Thr Pro  
 20 25 30  
 Gly Phe Ser Trp Ala His Asp Cys Pro Gln  
 35 40

<210> 337  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 337  
 Met Lys Ile Val Thr Thr Leu Tyr Cys Leu Phe Val Phe Leu Leu Asn  
 1 5 10 15  
 Cys Phe Gly Val Gly Gly Ser Cys Ile Phe Leu Ser Asn Arg Thr Pro  
 20 25 30  
 Gly Phe Ser Trp Ala His Asp Cys Pro Gln  
 35 40

<210> 338  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 338

Met Lys Ile Val Thr Thr Leu Tyr Cys Leu Phe Val Phe Leu Leu Asn  
 1 5 10 15

Cys Phe Gly Val Gly Gly Ser Cys Ile Phe Leu Ser Asn Arg Thr Pro  
 20 25 30

Gly Phe Ser Trp Ala His Asp Cys Pro Gln  
 35 40

&lt;210&gt; 339

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 339

Leu Leu Ser Asp Val Cys Pro Ser Leu Thr Val Pro Cys Ser Ser His  
 1 5 10 15

Val Phe Thr Asp Cys Leu Leu Tyr Met Gln Ser Gln Arg Val Gly Pro  
 20 25 30

Gly Leu Glu Leu Ser Pro His Leu Pro Leu Leu Ala Pro Pro Ser Ser  
 35 40 45

Trp Ala Leu Ser Ser Asn Thr Val Ile Leu Ser Pro Thr Trp Leu Ile  
 50 55 60

Leu Ser Phe Leu Pro Ser Asn Gly His Leu Gln Lys Lys Lys Lys Lys  
 65 70 75 80

Thr Arg

&lt;210&gt; 340

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (193)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (222)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (238)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (258)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 340

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Leu Ser  
 1 5 10 15

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu  
 20 25 30

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu  
 35 40 45

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys  
 50 55 60

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser  
 65 70 75 80

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Phe Pro  
 85 90 95

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Xaa  
 100 105 110

Xaa Phe Phe Gly Asp Val Val Leu Arg Phe Pro Lys Ile Val His Tyr  
 115 120 125

Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile  
 130 135 140

Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro  
 145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser  
 165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser  
 180 185 190

Xaa Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys  
 195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Lys Xaa Leu Pro  
 210 215 220

Asp Ser His Leu Glu Leu Leu Gly Pro Trp Ser Ser Phe Xaa Val Gln  
 225 230 235 240

Gly Ala Thr Arg Arg Gln Val Arg Glu Gly Arg Arg Gly Trp Ser Phe



245

250

255

Gly Xaa Trp Leu Glu Glu Ala Pro Phe  
260 265

&lt;210&gt; 341

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 341

Met Asp Leu Leu Gln Phe Leu Ala Phe Leu Phe Val Leu Leu Leu Ser  
1 5 10 15

Gly Met Gly Ala Thr Gly Thr Leu Arg Thr Ser Leu Asp Pro Ser Leu  
20 25 30

Glu Ile Tyr Lys Lys Met Phe Glu Val Lys Arg Arg Glu Gln Leu Leu  
35 40 45

Ala Leu Lys Asn Leu Ala Gln Leu Asn Asp Ile His Gln Gln Tyr Lys  
50 55 60

Ile Leu Asp Val Met Leu Lys Gly Leu Phe Lys Val Leu Glu Asp Ser  
65 70 75 80

Arg Thr Val Leu Thr Ala Ala Asp Val Leu Pro Asp Gly Pro Cys Pro  
85 90 95

Gln Asp Glu Lys Leu Lys Asp Ala Phe Ser His Val Val Glu Asn Thr  
100 105 110

Ala Phe Phe Gly Asp Val Val Leu Arg Phe Pro Arg Ile Val His Tyr  
115 120 125

Tyr Phe Asp His Asn Ser Asn Trp Asn Leu Leu Ile Arg Trp Gly Ile  
130 135 140

Ser Phe Cys Asn Gln Thr Gly Val Phe Asn Gln Gly Pro His Ser Pro  
145 150 155 160

Ile Leu Ser Leu Met Ala Gln Glu Leu Gly Ile Ser Glu Lys Asp Ser  
165 170 175

Asn Phe Gln Asn Pro Phe Lys Ile Asp Arg Thr Glu Phe Ile Pro Ser  
180 185 190

Thr Asp Pro Phe Gln Lys Ala Leu Arg Glu Glu Glu Lys Arg Arg Lys  
195 200 205

Lys Glu Glu Lys Arg Lys Glu Ile Arg Lys Gly Pro Arg Ile Ser Arg  
210 215 220

Ser Gln Ser Glu Leu  
225

<210> 342  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (19)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 342  
 Xaa Xaa Glu Asp Arg Leu Pro Gly Pro Ile Leu Pro Arg Gly Phe Gln  
 1 5 10 15

Leu Trp Xaa Ser Leu Gly Gly Glu Phe Pro Arg Leu Gln Ile Arg Pro  
 20 25 30

Met Cys His Ala Pro Asn Cys Leu Ser Val Arg Pro Ser Val Arg Pro  
 35 40 45

Ser Val His Pro Ser Ile His Pro Ser Ile Pro Val Thr Ile Ser Thr  
 50 55 60

Pro Met Cys Gln Met Pro Tyr Ile Ser Asn Leu Met Gln Val Pro Pro  
 65 70 75 80

Pro Pro Cys Pro Leu Leu Ile Gln  
 85

<210> 343  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (138)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (152)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 343  
 Met Arg Pro Arg Gly Leu Pro Pro Leu Leu Val Val Leu Leu Gly Cys  
 1 5 10 15

Trp Ala Ser Val Ser Ala Gln Thr Asp Ala Thr Pro Ala Val Thr Thr  
                   20                  25                  30  
 Glu Gly Leu Asn Ser Thr Glu Ala Ala Leu Ala Thr Phe Gly Thr Phe  
                   35                  40                  45  
 Pro Ser Thr Arg Pro Pro Gly Thr Pro Arg Ala Pro Gly Pro Ser Ser  
                   50                  55                  60  
 Gly Pro Arg Pro Thr Pro Val Thr Asp Val Ala Val Leu Cys Val Cys  
                   65                  70                  75                  80  
 Asp Leu Ser Pro Ala Gln Cys Asp Ile Asn Cys Cys Cys Asp Pro Asp  
                                   85                  90                  95  
 Cys Ser Ser Val Asp Phe Ser Val Phe Ser Ala Cys Ser Val Pro Val  
                   100                  105                  110  
 Val Thr Gly Asp Ser Gln Phe Cys Ser Gln Lys Ala Val Ile Tyr Ser  
                   115                  120                  125  
 Leu Asn Phe Thr Ala Asn Pro Pro Gln Xaa Val Phe Glu Leu Val Asp  
                   130                  135                  140  
 Gln Ile Asn Pro Ser Ile Phe Xaa Ile His Ile Thr Asn Cys Arg Cys  
                   145                  150                  155                  160  
 Ser Val

&lt;210&gt; 344

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 344

Pro Phe Tyr Ser Ser Pro Glu Ile Leu Arg Val Pro Asp Ser Arg Lys  
                   1                  5                  10                  15  
 Lys Val Pro Ile Thr Val Gln Ser Ile Val Ile Gln Ser Leu Asn Lys  
                   20                  25                  30  
 Thr Leu Thr Arg Arg Glu Asp Thr Asp Val Leu Gln Pro Thr Leu Val  
                   35                  40                  45  
 Asn Ala Gly His Phe Ser Leu Xaa Val Asn Val Val Leu Glu Val Lys  
                   50                  55                  60  
 Tyr Ser Leu Thr Tyr Thr Asp Ala Gly Glu Val Thr Lys Ala Asp Leu  
                   65                  70                  75                  80  
 Ser Phe Val Leu Gly Thr Val Ser Ser Val Val Val Pro Leu Gln Gln  
                   85                  90                  95

Lys Phe Glu Ile His Phe Leu Gln Glu Asn Thr Gln Pro Val Pro Leu  
                   100                                  105                                  110  
 Ser Gly Asn Pro Gly Tyr Val Val Gly Leu Pro Leu Ala Ala Gly Phe  
                   115                                  120                                  125  
 Gln Pro His Lys Gly Gly Ala Leu Pro Cys Gln Leu Val Ala Gln Lys  
                   130                                  135                                  140  
 Val Lys Ser Leu Leu Trp Gly Gln Gly Phe Pro Asp Tyr Val Ala Pro  
                   145                                  150                                  155                                  160  
 Phe Gly Asn Ser Gln Ala Gln Asp Met Leu Asp Trp Val Pro Ile His  
                                   165                                  170                                  175  
 Phe Ile Thr Gln Ser Phe Asn Arg Lys Asp Ser Cys Gln Leu Pro Gly  
                                   180                                  185                                  190  
 Ala Leu Val Ile Glu Val Lys Trp Thr Lys Tyr Gly Ser Leu Leu Asn  
                   195                                  200                                  205  
 Pro Gln Ala Lys Ile Val Asn Val Thr Ala Asn Leu Ile Ser Ser Ser  
                   210                                  215                                  220  
 Phe Pro Glu Ala Asn Ser Gly Asn Glu Arg Thr Ile Leu Ile Ser Thr  
                   225                                  230                                  235                                  240  
 Ala Val Thr Phe Val Asp Val Ser Ala Pro Ala Glu Ala Gly Phe Arg  
                                   245                                  250                                  255  
 Ala Pro Pro Ala Ile Asn Ala Arg Leu Pro Phe Asn Phe Phe Phe Pro  
                   260                                  265                                  270  
 Phe Val

&lt;210&gt; 345

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 345

Thr His Leu Phe Xaa Cys Asn Ser Tyr Tyr Lys Pro Leu Thr Xaa His  
 1 5 10 15

Xaa Pro Phe Ile Ile Gln Lys Xaa Pro Asp Glu Asn Asn Phe Asp Thr  
 20 25 30

Leu Met Lys Thr Ser Asp Gly Phe Thr Leu Asn Ala Glu Ser Tyr Val  
 35 40 45

Ser Phe Thr Thr Lys Leu Asp Ile Pro Thr Ala Ala Lys Tyr Glu Tyr  
 50 55 60

Gly Val Pro Leu Gln Thr Ser Asp Ser Phe Leu Arg Phe Pro Ser Ser  
 65 70 75 80

Leu Thr Ser Ser Leu Cys Thr Asp Asn Asn Pro Ala Ala Phe Leu Val  
 85 90 95

Asn Gln Ala Val Lys Cys Thr Arg Lys Ile Asn Leu Glu Gln Cys Glu  
 100 105 110

Glu Ile Glu Ala Leu Ser Met Ala Phe Tyr Ser Ser Pro Glu Ile Leu  
 115 120 125

Arg Val Pro Asp Ser Arg Lys Lys Val Pro Ile Thr Val Gln Ser Ile  
 130 135 140

Val Ile Gln Ser Leu Asn Lys Thr Leu Thr Arg Arg Glu Asp Thr Asp  
 145 150 155 160

Val Leu Gln Pro Thr Leu Val Asn Ala Gly His Phe Ser Leu Cys Val  
 165 170 175

Asn Val Val Leu Glu Asp Ser Cys Gln Leu Pro Gly Ala Leu Val Ile  
 180 185 190

Glu Val Lys Trp Thr Lys Tyr Gly Ser Leu Leu Asn Pro Gln Ala Lys  
 195 200 205

Ile Val Asn Val Thr Ala Asn Leu Ile Ser Ser Ser Phe Pro Glu Asn  
 210 215 220

Ala Gln Met His Gln Phe Leu Asn Ile His Val Lys Phe Glu Asn Cys  
 225 230 235 240

Thr Phe Gly Glu Ile Lys Phe Tyr Ile Gln Leu Ala Lys Lys  
 245 250

&lt;210&gt; 346

&lt;211&gt; 587

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 346

```

Met Arg Pro Arg Gly Leu Pro Pro Leu Leu Val Val Leu Leu Gly Cys
 1           5           10           15

Trp Ala Ser Val Ser Ala Gln Thr Asp Ala Thr Pro Ala Val Thr Thr
          20           25           30

Glu Gly Leu Asn Ser Thr Glu Ala Ala Leu Ala Thr Phe Gly Thr Phe
          35           40           45

Pro Ser Thr Arg Pro Pro Gly Thr Pro Arg Ala Pro Gly Pro Ser Ser
          50           55           60

Gly Pro Arg Pro Thr Pro Val Thr Asp Val Ala Val Leu Cys Val Cys
          65           70           75           80

Asp Leu Ser Pro Ala Gln Cys Asp Ile Asn Cys Cys Cys Asp Pro Asp
          85           90           95

Cys Ser Ser Val Asp Phe Ser Val Phe Ser Ala Cys Ser Val Pro Val
          100          105          110

Val Thr Gly Asp Ser Gln Phe Cys Ser Gln Lys Ala Val Ile Tyr Ser
          115          120          125

Leu Asn Phe Thr Ala Asn Pro Pro Gln Arg Val Phe Glu Leu Val Asp
          130          135          140

Gln Ile Asn Pro Ser Ile Phe Cys Ile His Ile Thr Asn Tyr Lys Pro
          145          150          155          160

Ala Leu Ser Phe Ile Asn Pro Glu Val Pro Asp Glu Asn Asn Phe Asp
          165          170          175

Thr Leu Met Lys Thr Ser Asp Gly Phe Thr Leu Asn Ala Glu Ser Tyr
          180          185          190

Val Ser Phe Thr Thr Lys Leu Asp Ile Pro Thr Ala Ala Lys Tyr Glu
          195          200          205

Tyr Gly Val Pro Leu Gln Thr Ser Asp Ser Phe Leu Arg Phe Pro Ser
          210          215          220

Ser Leu Thr Ser Ser Leu Cys Thr Asp Asn Asn Pro Ala Ala Phe Leu
          225          230          235          240

Val Asn Gln Ala Val Lys Cys Thr Arg Lys Ile Asn Leu Glu Gln Cys
          245          250          255

Glu Glu Ile Glu Ala Leu Ser Met Ala Phe Tyr Ser Ser Pro Glu Ile
          260          265          270

Leu Arg Val Pro Asp Ser Arg Lys Lys Val Pro Ile Thr Val Gln Ser
          275          280          285

Ile Val Ile Gln Ser Leu Asn Lys Thr Leu Thr Arg Arg Glu Asp Thr
          290          295          300

Asp Val Leu Gln Pro Thr Leu Val Asn Ala Gly His Phe Ser Leu Cys
          305          310          315          320

```

Val Asn Val Val Leu Glu Val Lys Tyr Ser Leu Thr Tyr Thr Asp Ala  
 325 330 335  
 Gly Glu Val Thr Lys Ala Asp Leu Ser Phe Val Leu Gly Thr Val Ser  
 340 345 350  
 Ser Val Val Val Pro Leu Gln Gln Lys Phe Glu Ile His Phe Leu Gln  
 355 360 365  
 Glu Asn Thr Gln Pro Val Pro Leu Ser Gly Asn Pro Gly Tyr Val Val  
 370 375 380  
 Gly Leu Pro Leu Ala Ala Gly Phe Gln Pro His Lys Gly Ser Gly Ile  
 385 390 395 400  
 Ile Gln Thr Thr Asn Arg Tyr Gly Gln Leu Thr Ile Leu His Ser Thr  
 405 410 415  
 Thr Glu Gln Asp Cys Leu Ala Leu Glu Gly Val Arg Thr Pro Val Leu  
 420 425 430  
 Phe Gly Tyr Thr Met Gln Ser Gly Cys Lys Leu Arg Leu Thr Gly Ala  
 435 440 445  
 Leu Pro Cys Gln Leu Val Ala Gln Lys Val Lys Ser Leu Leu Trp Gly  
 450 455 460  
 Gln Gly Phe Pro Asp Tyr Val Ala Pro Phe Gly Asn Ser Gln Ala Gln  
 465 470 475 480  
 Asp Met Leu Asp Trp Val Pro Ile His Phe Ile Thr Gln Ser Phe Asn  
 485 490 495  
 Arg Lys Asp Ser Cys Gln Leu Pro Gly Ala Leu Val Ile Glu Val Lys  
 500 505 510  
 Trp Thr Lys Tyr Gly Ser Leu Leu Asn Pro Gln Ala Lys Ile Val Asn  
 515 520 525  
 Val Thr Ala Asn Leu Ile Ser Ser Ser Phe Pro Glu Ala Asn Ser Gly  
 530 535 540  
 Asn Glu Arg Thr Ile Leu Ile Ser Thr Ala Val Thr Phe Val Asp Val  
 545 550 555 560  
 Ser Ala Pro Ala Glu Ala Gly Phe Arg Ala Pro Pro Ala Ile Asn Ala  
 565 570 575  
 Arg Leu Pro Phe Asn Phe Phe Phe Pro Phe Val  
 580 585

&lt;210&gt; 347

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 347

Met Lys Ala Leu Gly Ala Val Leu Leu Ala Leu Leu Leu Cys Gly Arg  
 1 5 10 15  
 Pro Gly Arg Gly Gln Thr Gln Gln Glu Glu Glu Glu Asp Glu Asp  
 20 25 30  
 His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu  
 35 40 45  
 Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg  
 50 55 60  
 Cys Tyr Thr Cys Lys Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr  
 65 70 75 80  
 Gln Asn Cys Ser His Gly Gln Thr Cys Thr Thr Leu Ile Ala His Gly  
 85 90 95  
 Asn Thr Glu Ser Gly Leu Leu Thr Thr His Ser Thr Trp Cys Thr Asp  
 100 105 110  
 Ser Cys Gln Pro Ile Thr Lys Thr Val Glu Gly Thr Gln Val Thr Met  
 115 120 125  
 Thr Cys Cys Gln Ser Ser Leu Cys Asn Val Pro Pro Trp Gln Ser Ser  
 130 135 140  
 Arg Val Gln Asp Pro Thr Gly Lys Gly Ala Gly Gly Pro Arg Gly Ser  
 145 150 155 160  
 Ser Glu Thr Val Gly Ala Ala Leu Leu Leu Asn Leu Leu Ala Gly Leu  
 165 170 175  
 Gly Ala Met Gly Ala Arg Arg Pro  
 180

<210> 348  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (19)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (21)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (29)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE



&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 348

Met	Phe	Ser	Leu	Ser	Trp	Gln	Leu	Ser	Leu	Val	Thr	Phe	Met	Gly	Phe
1				5					10					15	

Pro	Ile	Xaa	Met	Xaa	Val	Ser	Asn	Ile	Tyr	Gly	Lys	Xaa	Tyr	Lys	Arg
			20				25						30		

Leu	Ser	Lys	Glu	Val	Gln	Asn	Ala	Leu	Ala	Arg	Ala	Ser	Asn	Thr	Ala
		35				40						45			

Glu	Glu	Thr	Ile	Ser	Ala	Met	Lys	Thr	Val	Arg	Ser	Phe	Ala	Asn	Glu
	50					55					60				

Glu	Glu	Glu	Ala	Glu	Val	Tyr	Leu	Arg	Lys	Leu	Gln	Gln	Val	Tyr	Lys
	65				70					75				80	

Leu	Asn	Arg	Lys	Glu	Ala	Xaa	Ala	Tyr	Met	Tyr	Tyr	Val	Trp	Gly	Ser
				85					90					95	

Gly	Leu	Thr	Leu	Leu	Val	Val	Gln	Val	Ser	Ile	Leu
			100				105				

&lt;210&gt; 349

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 349

Val	Thr	Ile	Leu	Cys	Ile	Asp	Leu	Gly	Thr	Asp	Met	Val	Pro	Ala	Ile
1				5					10					15	

Ser	Leu	Ala	Tyr	Glu	Gln	Ala	Glu	Ser	Asp	Ile	Met	Lys	Arg	Gln	Pro
		20						25					30		

Arg	Asn	Pro	Lys	Thr	Asp	Lys	Leu	Val	Asn	Glu	Arg	Leu	Ile	Ser	Met
		35				40						45			

Ala	Tyr	Gly	Gln	Ile	Gly	Met	Ile	Gln	Ala	Leu	Gly	Gly	Phe	Phe	Thr
	50					55					60				

Tyr	Phe	Val	Ile	Leu	Ala	Glu	Asn	Gly	Phe	Leu	Pro	Ile	His	Leu	Leu
	65				70					75				80	

Gly	Leu	Arg	Val	Asp	Trp	Asp	Asp	Arg	Trp	Ile	Asn	Asp	Val	Glu	Asp
				85					90					95	

Ser	Tyr	Gly	Gln	Gln	Trp	Thr	Tyr	Glu	Gln	Arg	Lys	Ile	Val	Glu	Phe
			100					105					110		

Thr	Cys	His	Thr	Ala	Phe	Phe	Val	Ser	Ile	Val	Val	Val	Gln	Trp	Ala
		115					120						125		

Asp	Leu	Val	Ile	Cys	Lys	Thr	Arg	Arg	Asn	Ser	Val	Phe	Gln	Gln	Gly
	130						135				140				

Met Lys Asn Lys Ile Leu Ile Phe Gly Leu Phe Glu Glu Thr Ala Leu  
 145 150 155 160

Ala Ala Phe Leu Ser Tyr Cys Pro Gly Met Gly Val Ala Leu Arg Met  
 165 170 175

Tyr Pro Leu Lys Pro Thr Trp Trp Phe Cys Ala Phe Pro Tyr Ser Leu  
 180 185 190

Leu Ile Phe Val Tyr Asp Glu Val Arg Lys Leu Ile Ile Arg Arg Arg  
 195 200 205

Pro Gly Gly Trp Val Glu Lys Glu Thr Tyr Tyr  
 210 215

<210> 350

<211> 73

<212> PRT

<213> Homo sapiens

<400> 350

Phe Ser Ser Ser Met Ser Leu Ser Phe Leu Pro Phe Leu Pro Phe Leu  
 1 5 10 15

Ser Pro Cys Ser Glu Thr Ala Ala Gly Ser Tyr Leu Ser Arg Pro Thr  
 20 25 30

Pro Phe Pro Met Val Ala Val Leu Ser Ala Gly Ala Gly Ser Cys Arg  
 35 40 45

Trp Arg Ile Arg Glu Lys Ser Thr Glu Gln Leu Pro Ala Glu Arg Ala  
 50 55 60

Gly Pro Gly Glu Pro Ser Gly Gly Ser  
 65 70

<210> 351

<211> 296

<212> PRT

<213> Homo sapiens

<400> 351

Met Phe Ser Leu Ser Trp Gln Leu Ser Leu Val Thr Phe Met Gly Phe  
 1 5 10 15

Pro Ile Ile Met Met Val Ser Asn Ile Tyr Gly Lys Tyr Tyr Lys Arg  
 20 25 30

Leu Ser Lys Glu Val Gln Asn Ala Leu Ala Arg Ala Ser Asn Thr Ala  
 35 40 45

Glu Glu Thr Ile Ser Ala Met Lys Thr Val Arg Ser Phe Ala Asn Glu  
 50 55 60

Glu Glu Glu Ala Glu Val Tyr Leu Arg Lys Leu Gln Gln Val Tyr Lys  
 65 70 75 80

Leu Asn Arg Lys Glu Ala Ala Ala Tyr Met Tyr Tyr Val Trp Gly Ser  
                     85                    90                    95  
 Gly Leu Thr Leu Leu Val Val Gln Val Ser Ile Leu Tyr Tyr Gly Gly  
                     100                    105                    110  
 His Leu Val Ile Ser Gly Gln Met Thr Ser Gly Asn Leu Ile Ala Phe  
                     115                    120                    125  
 Ile Ile Tyr Glu Phe Val Leu Gly Asp Cys Met Glu Asn Val Ser Phe  
                     130                    135                    140  
 Ser Leu Ser Pro Gly Lys Val Thr Ala Leu Val Gly Pro Ser Gly Ser  
                     145                    150                    155                    160  
 Gly Lys Ser Ser Cys Val Asn Ile Leu Glu Asn Phe Tyr Pro Leu Glu  
                     165                    170                    175  
 Gly Gly Arg Val Leu Leu Asp Gly Lys Pro Ile Ser Ala Tyr Asp His  
                     180                    185                    190  
 Lys Tyr Leu His Arg Val Ile Ser Leu Val Ser Gln Glu Pro Val Leu  
                     195                    200                    205  
 Phe Ala Arg Ser Ile Thr Asp Asn Ile Ser Tyr Gly Leu Pro Thr Val  
                     210                    215                    220  
 Pro Phe Glu Met Val Val Glu Ala Ala Gln Lys Ala Asn Ala His Gly  
                     225                    230                    235                    240  
 Phe Ile Met Glu Leu Gln Asp Gly Tyr Ser Thr Glu Thr Gly Glu Lys  
                     245                    250                    255  
 Gly Ala Gln Leu Ser Gly Gly Gln Lys Gln Arg Val Ala Trp Pro Gly  
                     260                    265                    270  
 Leu Trp Cys Gly Thr Pro Gln Ser Ser Ser Trp Met Lys Pro Pro Ala  
                     275                    280                    285  
 Leu Trp Met Pro Arg Ala Ser Ile  
                     290                    295

&lt;210&gt; 352

&lt;211&gt; 446

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 352

Met Phe Ser Leu Ser Trp Gln Leu Ser Leu Val Thr Phe Met Gly Phe  
           1                    5                    10                    15  
 Pro Ile Ile Met Met Val Ser Asn Ile Tyr Gly Lys Tyr Tyr Lys Arg  
                     20                    25                    30  
 Leu Ser Lys Glu Val Gln Asn Ala Leu Ala Arg Ala Ser Asn Thr Ala  
                     35                    40                    45

Glu Glu Thr Ile Ser Ala Met Lys Thr Val Arg Ser Phe Ala Asn Glu  
 50 55 60  
 Glu Glu Glu Ala Glu Val Tyr Leu Arg Lys Leu Gln Gln Val Tyr Lys  
 65 70 75 80  
 Leu Asn Arg Lys Glu Ala Ala Ala Tyr Met Tyr Tyr Val Trp Gly Ser  
 85 90 95  
 Gly Leu Thr Leu Leu Val Val Gln Val Ser Ile Leu Tyr Tyr Gly Gly  
 100 105 110  
 His Leu Val Ile Ser Gly Gln Met Thr Ser Gly Asn Leu Ile Ala Phe  
 115 120 125  
 Ile Ile Tyr Glu Phe Val Leu Gly Asp Cys Met Glu Ser Val Gly Ser  
 130 135 140  
 Val Tyr Ser Gly Leu Met Gln Gly Val Gly Ala Ala Glu Lys Val Phe  
 145 150 155 160  
 Glu Phe Ile Asp Arg Gln Pro Thr Met Val His Asp Gly Ser Leu Ala  
 165 170 175  
 Pro Asp His Leu Glu Gly Arg Val Asp Phe Glu Asn Val Thr Phe Thr  
 180 185 190  
 Tyr Arg Thr Arg Pro His Thr Gln Val Leu Gln Asn Val Ser Phe Ser  
 195 200 205  
 Leu Ser Pro Gly Lys Val Thr Ala Leu Val Gly Pro Ser Gly Ser Gly  
 210 215 220  
 Lys Ser Ser Cys Val Asn Ile Leu Glu Asn Phe Tyr Pro Leu Glu Gly  
 225 230 235 240  
 Gly Arg Val Leu Leu Asp Gly Lys Pro Ile Ser Ala Tyr Asp His Lys  
 245 250 255  
 Tyr Leu His Arg Val Ile Ser Leu Val Ser Gln Glu Pro Val Leu Phe  
 260 265 270  
 Ala Arg Ser Ile Thr Asp Asn Ile Ser Tyr Gly Leu Pro Thr Val Pro  
 275 280 285  
 Phe Glu Met Val Val Glu Ala Ala Gln Lys Ala Asn Ala His Gly Phe  
 290 295 300  
 Ile Met Glu Leu Gln Asp Gly Tyr Ser Thr Glu Thr Gly Glu Lys Gly  
 305 310 315 320  
 Ala Gln Leu Ser Gly Gly Gln Lys Gln Arg Val Ala Met Ala Arg Ala  
 325 330 335  
 Leu Val Arg Asn Pro Pro Val Leu Ile Leu Asp Glu Ala Thr Ser Ala  
 340 345 350  
 Leu Asp Ala Glu Ser Glu Tyr Leu Ile Gln Gln Ala Ile His Gly Asn  
 355 360 365

Leu Gln Lys His Thr Val Leu Ile Ile Ala His Arg Leu Ser Thr Val  
 370 375 380

Glu His Ala His Leu Ile Val Val Leu Asp Lys Gly Arg Val Val Gln  
 385 390 395 400

Gln Gly Thr His Gln Gln Leu Leu Ala Gln Gly Gly Leu Tyr Ala Lys  
 405 410 415

Leu Val Gln Arg Gln Met Leu Gly Leu Gln Pro Ala Ala Asp Phe Thr  
 420 425 430

Ala Gly His Asn Glu Pro Val Ala Asn Gly Ser His Lys Ala  
 435 440 445

<210> 353

<211> 35

<212> PRT

<213> Homo sapiens

<400> 353

Lys Phe Lys Gln Val Ile Lys Ser Phe Tyr Lys Ile His Leu Ala Lys  
 1 5 10 15

Glu Ile Leu Ser Met Asn Ile Lys Leu Arg Lys Val Leu Tyr Val Phe  
 20 25 30

Leu Val Asn  
 35

<210> 354

<211> 27

<212> PRT

<213> Homo sapiens

<400> 354

Met Ala Ile Phe Cys Phe Ser Leu Cys Ser Leu Gly Ser Ile Leu Gly  
 1 5 10 15

Lys Gly Met Ser Thr Phe Gly Ser Ile Ser Val  
 20 25

<210> 355

<211> 99

<212> PRT

<213> Homo sapiens

<400> 355

Met Gly Arg Val Ser Ile Gln Gln Leu Gly Val Leu Val Ala Leu Pro  
 1 5 10 15

Val Pro Leu Leu Leu Leu Gly Cys Gly Ser Ala Leu His Pro Gly Ala  
 20 25 30

Pro Arg Ser Ile Pro His Thr Met Pro Ser Thr Arg Glu Val Gly Gln  
           35                          40                          45

Thr Arg Pro Gly Pro Cys Gln Pro Ser Val Pro Arg Phe Ser His Trp  
           50                          55                          60

Leu His Arg Met Val Ala Phe Ser Leu Pro Thr Ser Gln Ser Cys Ser  
       65                          70                          75                          80

Glu Gly Ala Trp Arg Ser Thr Leu Ser His Gln Gly Gln Leu Glu Thr  
                           85                          90                          95

Lys Ala Ile

<210> 356  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 356  
 Met Gly Arg Val Ser Ile Gln Gln Leu Gly Val Leu Val Ala Leu Pro  
       1                          5                          10                          15

Val Pro Leu Leu Leu Leu Gly Cys Gly Ser Ala Leu His Pro Gly Ala  
           20                          25                          30

Pro Arg Ser Ile Pro His Thr Met Pro Ser Thr Arg Glu Val Gly Gln  
           35                          40                          45

Thr Arg Pro Gly Pro Cys Gln Pro Ser Val Pro Arg Phe Ser His Trp  
           50                          55                          60

Leu His Arg Met Val Ala Phe Ser Leu Pro Thr Ser Gln Ser Cys Ser  
       65                          70                          75                          80

Glu Gly Ala Trp Arg Ser Thr Leu Ser His Gln Gly Gln Leu Glu Thr  
                           85                          90                          95

Lys Ala Ile

<210> 357  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (75)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 357  
 Met Gly Arg Val Ser Ile Gln Gln Leu Gly Val Leu Val Ala Leu Pro  
       1                          5                          10                          15

Val Pro Leu Leu Leu Leu Gly Cys Gly Ser Ala Leu His Pro Gly Ala  
                   20                  25                  30  
 Pro Arg Ser Ile Pro His Thr Met Pro Ser Thr Arg Glu Val Gly Gln  
                   35                  40                  45  
 Thr Arg Pro Gly Pro Cys Gln Pro Ser Val Pro Arg Phe Ser His Trp  
                   50                  55                  60  
 Leu His Arg Met Val Ala Phe Ser Leu Pro Xaa Ser Gln Ser Cys Ser  
                   65                  70                  75                  80  
 Glu Gly Ala Trp Arg Ser Thr Leu Ser His Gln Gly Gln Leu Glu Thr  
                   85                  90                  95  
 Lys Ala Ile

<210> 358  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<400> 358  
 Pro Ile Pro Trp Leu Cys Pro Pro Ser Pro Thr Leu Pro Leu Leu Ser  
                   1                  5                  10                  15  
 Ile Phe Phe Leu Pro Thr His Pro Pro Pro Pro Ser Arg Arg Gly Gly  
                   20                  25                  30  
 Leu Gly Arg Pro Arg Pro Ser Leu Glu Lys Pro Ser Leu Ser Ser Ala  
                   35                  40                  45  
 Val Val Pro Pro Pro Asn Pro Ile Thr Ala Ala His Pro Ile Leu Thr  
                   50                  55                  60  
 Val Ile Leu  
                   65

<210> 359  
 <211> 4  
 <212> PRT  
 <213> Homo sapiens

<400> 359  
 Ala Pro Arg Gly  
                   1

<210> 360  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 360

Met Gln Asn Arg Ser Pro Ala Phe Cys Phe Leu Leu Met Tyr Leu Leu  
 1 5 10 15  
 Cys Thr Cys Val Thr Arg Val Leu Leu Ser Ile Ile Phe Asn Leu Ile  
 20 25 30  
 Arg Ala Tyr Leu Trp Ser Trp His Asp Val Thr Pro Cys Val Arg Val  
 35 40 45  
 Gly Ile Thr Pro Val Tyr Leu Phe Leu Ser Ser Ala Ala His Asn Ala  
 50 55 60  
 Arg His Ile Val Gly Thr Leu  
 65 70

<210> 361  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 361  
 Met Gln Asn Arg Ser Pro Ala Phe Cys Phe Leu Leu Met Tyr Leu Leu  
 1 5 10 15  
 Cys Thr Cys Val Thr Arg Val Leu Leu Ser Ile Ile Phe Asn Leu Ile  
 20 25 30  
 Arg Ala Tyr Leu Trp Ser Trp His Asp Val Thr Pro Cys Val Arg Val  
 35 40 45  
 Gly Ile Thr Pro Val Tyr Leu Phe Leu Ser Ser Ala Ala His Asn Ala  
 50 55 60  
 Arg His Ile Val Gly Thr Leu  
 65 70

<210> 362  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 362  
 Met Leu Gln Asp Leu Cys Leu Cys Leu Phe Ser Ser Phe Phe Leu Ser  
 1 5 10 15  
 Leu Phe Val Cys Leu Lys Val Gly Gln Lys Ile Leu Leu Leu Thr Asp  
 20 25 30  
 Phe Pro Trp Ser Ala Ala Val Lys Arg Ser Leu Ser Leu Leu Ser Phe  
 35 40 45  
 Leu Met Glu  
 50



<210> 363  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 363  
 Met Leu Gln Asp Leu Cys Leu Cys Leu Phe Ser Ser Phe Phe Leu Ser  
           1                  5                          10                          15  
 Leu Phe Val Cys Leu Lys Val Gly Gln Lys Ile Leu Leu Leu Thr Asp  
                   20                          25                          30  
 Phe Pro Trp Ser Ala Ala Val Lys Arg Ser Leu Ser Leu Leu Ser Phe  
                   35                          40                          45  
 Leu Met Glu  
           50

<210> 364  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (41)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 364  
 Ser Cys Phe Leu Ala Leu Lys Ser Ile Leu Ala Val Cys Gly Gly Ser  
           1                  5                          10                          15  
 His Leu Pro Pro Ala Leu Trp Glu Ala Ser Gly Gly Gly Leu Val Pro  
                   20                          25                          30  
 Asn Ser Cys Ser Pro Gly Asp Pro Xaa Val Leu Glu Arg Pro Pro Pro  
                   35                          40                          45  
 Arg Trp Ser Ser Ser  
           50

<210> 365  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 365  
 Met Asp Asn Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser  
           1                  5                          10                          15  
 Leu Ile Ser Thr Ile Tyr Met Ala Ala Ser Ile Gly Thr Asp Phe Trp

20                      25                      30  
 Tyr Glu Tyr Arg Ser Pro Val Gln Glu Asn Ser Ser Asp Leu Asn Lys  
                     35                      40                      45  
 Ser Ile Trp Asp Glu Phe Ile Ser Asp Glu Ala Asp Glu Lys Thr Tyr  
                     50                      55                      60  
 Asn Asp Ala Leu Phe Arg Tyr Asn Gly Thr Val Gly Leu Trp Arg Arg  
                     65                      70                      75                      80  
 Cys Ile Thr Ile Pro Lys Asn Met His Trp Tyr Ser Pro Pro Glu Arg  
                     85                      90                      95  
 Xaa Glu Ser Phe Asp Val Val Thr Lys Cys Val Ser Ser His  
                     100                      105                      110

&lt;210&gt; 366

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (148)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 366

Arg Xaa Thr Xaa Xaa His Phe Ala Arg Thr Tyr Pro Gly Ile His Leu  
                     1                      5                      10                      15

Arg Ile Gly Ser Asp Trp Lys Asn Ala Cys Ala Met Leu Lys Asp Gly  
                     20                      25                      30

Thr Ala Gly Ser His Phe Met Ala Ser Pro Gln Cys Val Gly Tyr Ser  
                     35                      40                      45

Arg Ser Thr Ala Ala Pro Leu Thr Met Thr Met Cys Leu Pro Asp Leu  
                     50                      55                      60

Lys Glu Ile Gln Arg Ala Val Lys Leu Trp Val Arg Ser Leu Asp Ala  
                     65                      70                      75                      80

Gln Ser Val Tyr Val Ala Thr Asp Ser Glu Ser Tyr Val Pro Glu Leu  
85 90 95

Gln Gln Leu Phe Lys Gly Lys Val Lys Val Val Ser Leu Lys Pro Glu  
100 105 110

Val Ala Gln Val Asp Leu Tyr Ile Leu Gly Gln Ala Asp His Phe Ile  
115 120 125

Gly Asn Cys Val Ser Ser Phe Thr Ala Phe Val Lys Arg Glu Arg Asp  
130 135 140

Leu Gln Gly Xaa Pro Ser Ser Phe Phe Gly Met Asp Arg Pro Pro Lys  
145 150 155 160

Leu Arg Asp Glu Phe  
165

<210> 367

<211> 177

<212> PRT

<213> Homo sapiens

<400> 367

Leu Val Leu Trp Thr Arg Phe Tyr Arg Gly Asp Met Ser Leu His Ser  
1 5 10 15

Ser Pro Thr Leu Pro Thr Ser Leu Tyr Gln Ser Cys Asp Leu Ser Val  
20 25 30

Gly Gly Pro Ser Leu Leu Thr Trp Val Trp Arg Arg Glu Arg Arg Cys  
35 40 45

Cys Lys Val Phe Ser Val Ser His Cys Leu Glu Ala Gly Pro Ala Lys  
50 55 60

Ala Trp Ala His Ser Cys Thr Gly Ser Pro Arg Gly Arg Thr Gly Trp  
65 70 75 80

Gly Ser Arg Ala Cys Glu Ala Leu Gly Lys Gly Met Gly Leu Trp Gly  
85 90 95

Arg Gly Gly Met Gly Phe Arg Ser Ile Cys Thr Ile Arg Lys Val Leu  
100 105 110

Arg Ser Phe Phe Leu Glu Gly Thr Leu Ser Ser Leu Ser Leu Phe Leu  
115 120 125

Asp Leu Gly Leu Glu Leu Arg Met Gly Arg Cys Ala Gln Gly Gly Thr  
130 135 140

His Gln Ser Thr Arg Glu Gly Gly Tyr Leu Gly Val Ser Gln Gly Leu  
145 150 155 160

Cys Gln Cys Leu Gln Pro Thr Ser Arg Ser Leu Glu Phe Gly Glu Trp  
165 170 175

Gly

<210> 368  
 <211> 184  
 <212> PRT  
 <213> Homo sapiens

<400> 368  
 Met Asp Asn Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser  
     1                    5                    10                    15  
 Leu Ile Ser Thr Ile Tyr Met Ala Ala Ser Ile Gly Thr Asp Phe Trp  
                     20                    25                    30  
 Tyr Glu Tyr Arg Ser Pro Val Gln Glu Asn Ser Ser Asp Leu Asn Lys  
                     35                    40                    45  
 Ser Ile Trp Asp Glu Phe Ile Ser Asp Glu Ala Asp Glu Lys Thr Tyr  
                     50                    55                    60  
 Asn Asp Ala Leu Phe Arg Tyr Asn Gly Thr Val Gly Leu Trp Arg Arg  
                     65                    70                    75                    80  
 Cys Ile Thr Ile Pro Lys Asn Met His Trp Tyr Ser Pro Pro Glu Arg  
                     85                    90                    95  
 Thr Glu Ser Phe Asp Val Val Thr Lys Cys Val Ser Phe Thr Leu Thr  
                     100                    105                    110  
 Glu Gln Phe Met Glu Lys Phe Val Asp Pro Gly Asn His Asn Ser Gly  
                     115                    120                    125  
 Ile Asp Leu Leu Arg Thr Tyr Leu Trp Arg Cys Gln Phe Leu Leu Pro  
                     130                    135                    140  
 Phe Val Ser Leu Gly Leu Met Cys Phe Gly Ala Leu Ile Gly Leu Cys  
                     145                    150                    155                    160  
 Ala Cys Ile Cys Arg Ser Leu Tyr Pro Thr Ile Ala Thr Gly Ile Leu  
                     165                    170                    175  
 His Leu Leu Ala Asp Thr Met Leu  
                     180

<210> 369  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (64)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
 <220>  
 <221> SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 369

Ser Thr His Ala Ser Gly Arg Thr Cys Ala Leu Pro Ala Ala Thr  
 1 5 10 15

Pro Arg Arg Val Gly Ala Ala Ala Pro Gly Cys Ala Gln Gly Arg Ala  
 20 25 30

Thr Asp Gly Ala Arg Arg Ala Glu Leu Arg Arg Glu Pro Ala Val Val  
 35 40 45

Ala His Arg His Gly His Ala Gly Ala His Gln Gly Gly Ala Gln Xaa  
 50 55 60

Ala Ala Gln Pro His Arg Arg Leu Gln Val Pro Gln Ala Gln Ala Gly  
 65 70 75 80

Ala His Leu Ala Pro Gly Arg Glu Ser Glu Asp Pro Gln Glu Ser Glu  
 85 90 95

His Gly Ala Gly Val His Gly Glu Pro Ala Ala Arg Ala Gly Gly Ala  
 100 105 110

Xaa Gln Ala Glu Ser Pro Gln Pro Arg Gln Gln Arg Leu Pro Ala Ala  
 115 120 125

Ala Pro Ala Pro Gly Ala Arg Val Leu Ser Pro Arg Ala Gly Arg Met  
 130 135 140

Arg Gly His Pro Pro Gln Gly Ala Gly Ser Arg Gly Gly Val Val Gly  
 145 150 155 160

Ala Pro Asp Leu Glu Arg Val Arg Pro Trp Gly Pro Pro Leu Pro Glu  
 165 170 175

Cys Ala Gln Glu Leu Arg Glu Gly Ala Ala Pro Gly Asp Ser Pro Pro  
 180 185 190

Pro Arg Val Pro Arg Thr Arg Gln Ala Gly Pro Pro Ala Pro Gly Gly  
 195 200 205

Ala Ser Ala  
 210

&lt;210&gt; 370

&lt;211&gt; 225

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (112)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (166)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 370

Arg Pro Asp Leu Glu Arg Val Arg Pro Trp Xaa Pro Pro Leu Pro Glu  
 1 5 10 15

Cys Ala Gln Glu Leu Arg Glu Gly Ala Ala Pro Gly Ile Pro Pro Arg  
 20 25 30

Gly Cys Pro Gly Leu Gly Arg Gly Ala Pro Asp Ser Thr Ser Trp Thr  
 35 40 45

Pro Cys Ser Arg Gly Gly Glu Arg Met Thr Pro Pro Pro Ser Arg Cys  
 50 55 60

Leu Phe Pro Pro Arg Gly Arg Pro Val Leu His Lys Pro Ala Arg Leu  
 65 70 75 80

Gly Cys Pro Phe Val His Arg Ala Gly Lys Gly Ala Pro Arg Gly Arg  
 85 90 95

Ser Ser Lys Pro Cys Leu Ser Phe Thr Phe Thr Phe Phe Phe Phe Xaa  
 100 105 110

Phe Gly Arg Glu Lys Asn Arg Val Phe Asp Ser Ala Leu Phe Met Phe  
 115 120 125

Leu Leu Gly Asn Lys Arg Trp Leu Cys Val Cys Val Phe Ser Cys Val  
 130 135 140

Gly Phe Leu Lys Lys Trp Glu Glu Glu Lys Lys Ile Leu Arg Pro Phe  
 145 150 155 160

Pro Arg Ser Arg Ser Xaa Leu Arg Phe Phe Arg Pro Val Pro Pro Pro  
 165 170 175

Phe Phe Val Leu Phe Cys Phe Val Leu Leu Arg Val His Ile Pro Val  
 180 185 190

Cys Asn Pro Trp Phe Ala Arg Phe Ser Val Phe Ser Lys Val Ser Leu  
 195 200 205

Arg Gln Lys Pro Arg Ala Glu Phe Leu Gly Leu Glu Gly Gln Asn Phe  
 210 215 220

Pro

225

&lt;210&gt; 371

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 371

Met Ile Pro Phe Phe Leu Val Trp Val Ser Phe Leu His Ser Phe Ser  
 1 5 10 15

Val Ala Cys Ile Leu Gly His His Glu Cys Phe Ala Phe Ser Leu Ala  
 20 25 30

Asp Asp Thr Ile Gly Thr Ala Trp His Gly Gly Lys Val Ser His Lys  
 35 40 45

Leu Thr Tyr Lys His Cys Gly Ser Arg Ala His Asp Tyr Leu Glu Gly  
 50 55 60

Glu Ser Leu Leu  
 65

&lt;210&gt; 372

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 372

Val Ile Pro Phe Tyr Ile His Tyr Phe Val Tyr Phe Asn Cys Phe Ile  
 1 5 10 15

Leu Val Thr Leu Pro Phe Lys Ile Phe Lys Leu Pro Ile Val Arg Cys  
 20 25 30

Gln Trp Glu Trp Thr Pro Asp Gly Gln Ile Tyr Lys Trp Gln Trp Leu  
 35 40 45

Asp Gln Thr Arg Thr Leu Glu Asp Gly Arg Val Gly Ala Lys  
 50 55 60

&lt;210&gt; 373

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 373

Ile Pro Leu Trp Phe Ile Ser Val Ser Phe Xaa Met Xaa Arg Phe Thr  
 1 5 10 15

Ile Leu Asn Gln Tyr His Val Thr Cys Arg Cys Gln Asn  
 20 25

<210> 374  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 374  
 Met Ile Pro Phe Phe Leu Val Trp Val Ser Phe Leu His Ser Phe Ser  
     1                    5                    10                    15  
 Val Ala Cys Ile Leu Gly His His Glu Cys Phe Ala Phe Ser Leu Ala  
                     20                    25                    30  
 Asp Asp Thr Ile Gly Thr Ala Trp His Gly Gly Lys Val Ser His Lys  
             35                    40                    45  
 Leu Thr Tyr Lys His Cys Gly Ser Arg Ala His Asp Tyr Leu Glu Gly  
     50                    55                    60  
 Glu Ser Leu Leu  
     65

<210> 375  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (42)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
 <220>  
 <221> SITE  
 <222> (44)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 375  
 Leu Leu Ser Ala Met Leu Pro Gly Glu Asn Glu Ile Val Ala Trp Ile  
     1                    5                    10                    15  
 Asn Glu Ser Val Cys Val Ala Arg Ser Gly Leu Ala Leu Asp Val Asp  
             20                    25                    30  
 Gly Ala Pro Ala Leu Ser Pro Gln Leu Xaa Ser Xaa Lys Ile Ser Asn  
     35                    40                    45  
 Leu Glu Glu Asn Gly Arg Thr Val Glu  
     50                    55

<210> 376  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 376

Met Ala Leu Val Val Glu Ala Val Ile Ile Ile Phe Ile Glu Cys Gln  
 1 5 10 15

Ala Leu Cys Ile Ile Leu Ser Ser Ser His Ile Asn Arg Arg Arg Gln  
 20 25 30

Val Val Ile Ala Pro Phe Gly Glu Ser Glu Asn  
 35 40

&lt;210&gt; 377

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 377

Ser Ala Cys Phe Cys Cys Ala Ala Ser Ser Leu Phe Ser Ser Phe Ser  
 1 5 10 15

Ile Val Ser Pro Leu Trp Lys Lys  
 20

&lt;210&gt; 378

&lt;211&gt; 477

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (49)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (57)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (109)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (152)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (197)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (198)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (203)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (459)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (463)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (468)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 378

Met Val Asn Ala Cys Trp Cys Gly Leu Leu Ala Ala Leu Ser Leu Leu  
1 5 10 15

Leu Asp Ala Ser Thr Asp Glu Ala Ala Thr Glu Asn Ile Leu Lys Ala  
20 25 30

Glu Leu Thr Met Ala Ala Leu Cys Gly Lys Leu Gly Leu Val Thr Ser  
35 40 45

Xaa Asn Ala Phe Ile Thr Ala Ile Xaa Lys Gly Ser Leu Pro Pro His  
50 55 60

Tyr Ala Leu Thr Val Leu Asn Thr Thr Thr Ala Ala Thr Leu Ser Asn  
65 70 75 80

Lys Ser Tyr Ser Val Gln Gly Gln Ser Val Met Met Ile Ser Pro Ser  
85 90 95

Ser Glu Ser His Gln Gln Val Val Xaa Val Gly Gln Xaa Leu Ala Val  
100 105 110

Gln Pro Gln Gly Thr Val Met Leu Thr Ser Lys Asn Ile Gln Cys Met  
115 120 125

Arg Thr Leu Leu Asn Leu Ala His Cys His Gly Ala Val Leu Gly Thr  
130 135 140

Ser Trp Gln Leu Val Leu Ala Xaa Leu Gln His Leu Val Trp Ile Leu  
 145 150 155 160  
 Gly Leu Lys Pro Ser Ser Gly Gly Ala Leu Lys Pro Gly Arg Ala Val  
 165 170 175  
 Glu Gly Pro Ser Thr Val Leu Thr Thr Ala Val Met Thr Asp Leu Pro  
 180 185 190  
 Val Xaa Ser Asn Xaa Xaa Ser Arg Leu Phe Xaa Ser Ser Gln Tyr Leu  
 195 200 205  
 Asp Asp Val Ser Leu His His Leu Ile Asn Ala Leu Cys Ser Leu Ser  
 210 215 220  
 Leu Glu Ala Met Asp Met Ala Tyr Gly Asn Asn Lys Glu Pro Ser Leu  
 225 230 235 240  
 Phe Ala Val Ala Lys Leu Leu Glu Thr Gly Leu Val Asn Met His Arg  
 245 250 255  
 Ile Glu Ile Leu Trp Arg Pro Leu Thr Gly His Leu Leu Glu Val Cys  
 260 265 270  
 Gln His Pro Asn Ser Arg Met Arg Glu Trp Gly Ala Glu Ala Leu Thr  
 275 280 285  
 Ser Leu Ile Lys Ala Gly Leu Thr Phe Asn His Asp Pro Pro Leu Ser  
 290 295 300  
 Gln Asn Gln Arg Leu Gln Leu Leu Leu Leu Asn Pro Leu Lys Glu Met  
 305 310 315 320  
 Ser Asn Ile Asn His Pro Asp Ile Arg Leu Lys Gln Leu Glu Cys Val  
 325 330 335  
 Leu Gln Ile Leu Gln Ser Gln Gly Asp Ser Leu Gly Pro Gly Trp Pro  
 340 345 350  
 Leu Val Leu Gly Val Met Gly Ala Ile Arg Asn Asp Gln Gly Glu Ser  
 355 360 365  
 Leu Ile Arg Thr Ala Phe Gln Cys Leu Gln Leu Val Val Thr Asp Phe  
 370 375 380  
 Leu Pro Thr Met Pro Cys Thr Cys Leu Gln Ile Val Val Asp Val Ala  
 385 390 395 400  
 Gly Ser Phe Gly Leu His Asn Gln Glu Leu Asn Ile Ser Leu Thr Ser  
 405 410 415  
 Ile Gly Leu Leu Trp Asn Ile Ser Asp Tyr Phe Phe Gln Arg Gly Glu  
 420 425 430  
 Thr Ile Glu Lys Glu Leu Asn Lys Glu Glu Ala Ala Gln Gln Lys Gln  
 435 440 445  
 Ala Glu Glu Lys Gly Val Gly Leu Asn Arg Xaa Phe His Pro Xaa Pro  
 450 455 460

Ala Phe Asp Xaa Trp Gly Tyr Ala Leu Cys Lys Ile Gly  
 465 470 475

<210> 379  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<400> 379  
 Asn Ser Gln Tyr Phe Thr Thr Asn Ile Ala Leu Met Phe Leu Phe Lys  
 1 5 10 15  
 Lys Lys Lys Val Tyr Gly Cys Leu His Leu Ser Thr Val  
 20 25

<210> 380  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 380  
 Met His Leu Asn Val Gln Tyr Cys Thr Ile His Leu Ile Leu Leu Leu  
 1 5 10 15  
 Leu Phe Ile Thr Arg His Tyr Ala Tyr Gln Trp Thr Phe Gln Val Gly  
 20 25 30  
 Gly Leu Thr Val Ala Ser Ser Val Val Trp Gln His Pro Ser Ala Val  
 35 40 45  
 Ser Ile Tyr Thr Leu Leu Tyr Ile Tyr Ala Pro His Gln Gly Ser Thr  
 50 55 60  
 Gly Thr Arg Arg His Cys  
 65 70

<210> 381  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<400> 381  
 Leu Gln Glu Phe Gly Thr Ser Gly Thr Ser Ala Asn Thr Thr Ala Val  
 1 5 10 15  
 Ala Leu Asn Ala Pro Ala His Pro Ala Arg Leu Leu Pro Pro Gly Pro  
 20 25 30  
 Ala Val Ala Leu Leu Leu Leu Arg Gly Ser Cys Ser Leu Cys Cys Cys  
 35 40 45  
 His Gln Pro His Lys Ala Ser Cys Lys Ala Met Pro Ser Ala Gly Ser  
 50 55 60

Asn Val Pro  
65

<210> 382  
<211> 79  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 382  
Met Gly Cys Cys Ser Lys Lys Tyr Trp Gln Leu Leu Leu Gly Ala Ala  
1 5 10 15  
Pro Trp Gly Val Ile Pro Xaa Leu Leu Trp Met Gly Thr Arg Ala  
20 25 30  
Pro His Phe Lys Asp Ser Val Ser Gln Gly Leu Pro Xaa Lys Ala Glu  
35 40 45  
Glu Ser Arg Ala Asn Phe Asn Gln Phe Leu Val Leu Leu Met Pro Lys  
50 55 60  
Glu Met Ile Val Leu Thr Ile Val His Pro Ile Val Arg Arg Ala  
65 70 75

<210> 383  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 383  
Met Phe Leu Val Ser Pro Ser Val Ser Ser Val Val Ser Ser Leu Leu  
1 5 10 15  
Ser Ile Phe Trp Leu Met His Leu Gly Gln Val Trp Leu Gly Ser Met  
20 25 30  
Glu Thr His Pro Ile Thr Ser  
35

<210> 384  
<211> 39  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 384

Met Phe Leu Val Ser Pro Ser Val Ser Ser Val Val Ser Ser Leu Leu  
1 5 10 15

Ser Ile Phe Trp Leu Met His Leu Gly Gln Val Trp Leu Gly Ser Met  
20 25 30

Glu Thr His Pro Ile Thr Ser  
35

&lt;210&gt; 385

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 385

Met Phe Leu Val Ser Pro Ser Val Ser Ser Val Val Ser Ser Leu Leu  
1 5 10 15

Ser Ile Phe Trp Leu Met His Leu Gly Gln Val Trp Leu Gly Ser Met  
20 25 30

Glu Thr His Pro Ile Thr Ser  
35

&lt;210&gt; 386

&lt;211&gt; 198

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (97)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (164)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (196)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 386

Pro Asp Pro Asn Ala Arg Arg Gly Xaa Asn Ala Xaa Ser Thr Arg Thr  
 1 5 10 15  
 Asp His Glu His Arg Thr Tyr Arg Leu Tyr Arg Arg Pro Ser Arg Phe  
 20 25 30  
 Arg Asp Ser Pro Ala Gln Arg Pro Tyr Pro Ala Ala Gly Tyr Val Glu  
 35 40 45  
 Thr Val Ala Arg Ala His Glu Ala Ala Gly Phe Asp Arg Ala Leu Val  
 50 55 60  
 Ala Phe His Ser Asn Ser Pro Asp Ser Thr Leu Ile Ala Ala His Ala  
 65 70 75 80  
 Ala Ser Val Thr Gln Lys Leu Gln Phe Leu Ile Ala His Arg Pro Gly  
 85 90 95  
 Xaa Ala Gln Pro Thr Leu Ala Ala Arg Gln Phe Ala Thr Leu Asp Val  
 100 105 110  
 Phe Asn Gly Gly Arg Thr Ala Val His Ile Ile Thr Gly Gly Asp Asp  
 115 120 125  
 Arg Glu Leu Arg Ala Asp Gly Ser His Ile Gly Lys Asp Glu Arg Tyr  
 130 135 140  
 Ala Arg Thr Asp Glu Tyr Leu Ser Val Val Arg Gln Glu Trp Thr His  
 145 150 155 160  
 Glu Gln Pro Xaa Asp Phe Lys Gly Thr Tyr Tyr Gln Val Glu Gly Ala  
 165 170 175  
 His Ser Thr Val Lys Ser Pro Gln Gln Pro His Ile Pro Leu Tyr Phe  
 180 185 190  
 Gly Gly Ser Xaa Arg Gly  
 195

&lt;210&gt; 387

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 387

Glu Leu Gly Arg Leu Arg His Pro Thr Gln Gly Lys Pro Ala Cys His  
 1 5 10 15  
 Ile Glu Cys Thr Ala Leu Ile Lys Phe Thr His Asp Asn Ser Ala Phe  
 20 25 30  
 Tyr Asn

&lt;210&gt; 388

&lt;211&gt; 207

<212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (110)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (111)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (129)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (133)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 388  
 Met Arg Pro Trp Arg Phe Gly Trp Pro Arg Thr Leu Ala Ser Gln Leu  
 1 5 10 15

Ser Leu Ile Phe Leu Ile Ser Leu Val Cys Ala His Gly Leu Ser Phe  
 20 25 30

Ser Ala Gln Phe Tyr Glu Arg Tyr Ile Ser Ala Arg Thr Val Met Leu  
 35 40 45

Gly Asn Leu Glu Asn Asp Val Ser Thr Ser Val Ala Ile Leu Asp Arg  
 50 55 60

Leu Pro Ala Asn Glu Arg Ala Ile Gly Trp Arg Val Leu Arg Pro Ala  
 65 70 75 80

Glu Leu Pro Val Leu Leu Asn Ala Gly Glu Ala Gly Glu Pro Met Thr  
 85 90 95

Ser Asn Asp Val Pro Met Ala Ala Xaa Phe Asp Cys Gly Xaa Xaa Gly  
 100 105 110

Arg Ala Leu Xaa Pro Asp Leu Ser Arg Tyr Ser Arg His Pro Glu Thr  
 115 120 125

Xaa Pro Gly Ala Xaa Asp Pro Gly Arg Trp Gln Pro Asp His Pro Arg  
 130 135 140



Arg Thr Pro Arg Arg Pro Ala Arg Ser Leu Leu Val Ala Gly Gly Ala  
 145 150 155 160

Gly Ala Ala Thr Gly Ala Ala Ala Arg Leu His Leu Gly Arg Gly Ala  
 165 170 175

Pro Gly Arg Ala Pro Ala Asp Thr Pro Gly Pro Cys Gly Arg Asn Pro  
 180 185 190

Arg Pro Glu Arg Ser Pro His Thr Pro Gly Arg Asn Arg Pro Glu  
 195 200 205

<210> 389

<211> 18

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 389

Gly Trp Pro Arg Trp Arg Arg Glu Arg Cys Ala Asn Thr Pro Xaa Val  
 1 5 10 15

Xaa Leu

<210> 390

<211> 435

<212> PRT

<213> Homo sapiens

<400> 390

Met Arg Pro Trp Arg Phe Gly Trp Pro Arg Thr Leu Ala Ser Gln Leu  
 1 5 10 15

Ser Leu Ile Phe Leu Ile Ser Leu Val Cys Ala His Gly Leu Ser Phe  
 20 25 30

Ser Ala Gln Phe Tyr Glu Arg Tyr Ile Ser Ala Arg Thr Val Met Leu  
 35 40 45

Gly Asn Leu Glu Asn Asp Val Ser Thr Ser Val Ala Ile Leu Asp Arg  
 50 55 60

Leu Pro Ala Asn Glu Arg Ala Ser Trp Leu Ala Arg Leu Asp Arg Gln  
 65 70 75 80

Asn Tyr Arg Tyr Leu Leu Asn Ala Gly Glu Ala Gly Glu Pro Met Thr  
                                     85                                    90                                    95  
 Ser Asn Asp Val Pro Met Ala Ala Thr Ser Ile Ala Asp Ala Leu Gly  
                                     100                                    105                                    110  
 Glu His Tyr Ala Leu Thr Phe Arg Asp Ile Pro Gly Ile Gln Lys His  
                                     115                                    120                                    125  
 Phe Gln Val His Leu Thr Leu Ala Asp Gly Asn Pro Ile Thr Leu Asp  
                                     130                                    135                                    140  
 Val Arg Pro Ala Ala Leu Pro Val Ala Tyr Trp Leu Pro Val Val Leu  
                                     145                                    150                                    155                                    160  
 Val Leu Gln Leu Ala Leu Leu Leu Gly Cys Thr Trp Val Ala Val Arg  
                                     165                                    170                                    175  
 Leu Ala Val Arg Pro Leu Thr Arg Leu Ala Arg Ala Val Glu Thr Leu  
                                     180                                    185                                    190  
 Asp Pro Asn Ala His Pro Thr Pro Leu Asp Glu Thr Gly Pro Ser Glu  
                                     195                                    200                                    205  
 Val Ala His Ala Ala Ala Ala Phe Asn Ala Met Gln Gln Arg Ile Ala  
                                     210                                    215                                    220  
 Glu Tyr Leu Lys Glu Arg Met Gln Ile Leu Ala Ala Ile Ser His Asp  
                                     225                                    230                                    235                                    240  
 Leu Gln Thr Pro Ile Thr Arg Met Lys Leu Arg Ala Glu Phe Met Asp  
                                     245                                    250                                    255  
 Asp Ser Ala Asp Arg Glu Lys Leu Trp Ser Asp Leu Ser Glu Met Glu  
                                     260                                    265                                    270  
 His Leu Val Arg Glu Gly Val Ala Tyr Ala Arg Ser Val His Gly Ala  
                                     275                                    280                                    285  
 Thr Glu Ala Ser His Arg Ile Asp Leu Asp Ala Phe Leu Asp Ser Leu  
                                     290                                    295                                    300  
 Val Phe Asp Tyr Gln Asp Met Gln Lys Gln Val Ser Leu Arg Gly Lys  
                                     305                                    310                                    315                                    320  
 Ser Ala Leu Ile Leu Asp Thr Arg Pro His Ala Leu Arg Arg Val Leu  
                                     325                                    330                                    335  
 Val Asn Leu Val Asp Asn Ala Leu Lys Phe Ala Gly Asn Ala Glu Leu  
                                     340                                    345                                    350  
 Glu Val Gly Ser Thr Ala Asn Gly Gln Leu Ser Ile Lys Val Leu Asp  
                                     355                                    360                                    365  
 Gln Gly Pro Gly Ile Ala Glu Asp Glu Leu Ala Gln Val Leu Gln Pro  
                                     370                                    375                                    380  
 Phe Tyr Arg Val Glu Ser Ser Arg Asn Arg Gly Thr Gly Gly Thr Gly  
                                     385                                    390                                    395                                    400

Leu Gly Leu Ala Ile Ala Gln Gln Leu Ala Val Ala Ile Gly Gly Thr  
 405 410 415

Leu Thr Leu Ser Asn Arg Val Glu Gly Gly Leu Cys Ala Glu Ile Arg  
 420 425 430

Leu Ser Leu  
 435

<210> 391  
 <211> 34  
 <212> PRT  
 <213> Homo sapiens

<400> 391  
 Cys Lys Trp Val Gln Asn Gly Gly His Pro Asn Val Glu Ser Ser Lys  
 1 5 10 15

Tyr His Cys His Glu Pro Lys Ala Ser Leu Tyr Thr Leu Glu Glu Ser  
 20 25 30

Thr Leu

<210> 392  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<400> 392  
 Leu Leu Leu Cys Lys Phe Lys Lys Val Asn Tyr Phe Leu Lys Val Leu  
 1 5 10 15

Ile Ser Asn Phe Ser Ile Trp Ala Tyr Asp His His  
 20 25

<210> 393  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens

<400> 393  
 Met Ala Gly His Pro Thr Leu Ile Leu Leu Cys Lys Trp Ala Phe His  
 1 5 10 15

Leu Thr Gly Ala Ile Cys Glu Pro Tyr Leu Asn Gln Thr Leu Pro Thr  
 20 25 30

Gln Ala Cys Leu  
 35

<210> 394

<211> 36  
<212> PRT  
<213> Homo sapiens

<400> 394  
Met Ala Gly His Pro Thr Leu Ile Leu Leu Cys Lys Trp Ala Phe His  
1 5 10 15  
Leu Thr Gly Ala Ile Cys Glu Pro Tyr Leu Asn Gln Thr Leu Pro Thr  
20 25 30  
Gln Ala Cys Leu  
35

<210> 395  
<211> 41  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 395  
Met Trp Leu Met Leu Ile Leu Ser Leu Thr Ser Gly Glu Thr Xaa Ala  
1 5 10 15  
Leu Arg Gly Cys Cys Ser Ser Ser Trp Thr Tyr Gly Glu Ser Ala Ala  
20 25 30  
Gly Pro Ala Asp Gln Ala Pro Cys Leu  
35 40

<210> 396  
<211> 41  
<212> PRT  
<213> Homo sapiens

<400> 396  
Met Trp Leu Met Leu Ile Leu Ser Leu Thr Ser Gly Glu Thr Glu Ala  
1 5 10 15  
Leu Arg Gly Cys Cys Ser Ser Ser Trp Thr Tyr Gly Glu Ser Ala Ala  
20 25 30  
Gly Pro Ala Asp Gln Ala Pro Cys Leu  
35 40

<210> 397  
<211> 20  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 397

Ile Phe Ala Leu Ser Leu Ser Phe Tyr Thr Cys Ile His Ile His Thr  
 1 5 10 15

His Arg His Thr  
 20

&lt;210&gt; 398

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 398

Met Cys Thr Leu Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu  
 1 5 10 15

Leu Tyr Arg His Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu  
 20 25 30

Cys Ala Ser Val His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu  
 35 40 45

Thr Arg Pro Leu Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His  
 50 55 60

Arg Gly Tyr Gln Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe  
 65 70 75 80

Thr Glu Ser Glu Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu  
 85 90 95

Val Ser Pro Val Cys Pro Arg Pro Arg Val Arg Leu Gly Ser Glu Ile  
 100 105 110

Arg Asp Ser Val Val  
 115

&lt;210&gt; 399

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 399

Met Met Asn Val Ser Lys Ile Ser Phe Phe Ala Met Phe Leu Met Tyr  
 1 5 10 15

Leu Leu Ala Ala Leu Phe Gly Tyr Leu Thr Phe Tyr Glu His Val Glu  
 20 25 30

Ser Glu Leu Leu His Thr Tyr Ser Ser Ile Leu Gly Thr Asp Ile Leu  
 35 40 45

Leu Leu Ile Val Arg Leu Ala Val Leu Met Ala Val Thr Leu Thr Val  
 50 55 60

Pro Val Val Ile Phe Pro Ile Arg Ser Ser Val Thr His Leu Leu Cys

65                      70                      75                      80  
 Ala Ser Lys Asp Phe Ser Trp Trp Arg His Ser Leu Ile Thr Val Ser  
                                  85                      90                      95  
 Ile Leu Ala Phe Thr Asn Leu Leu Val Ile Phe Val Pro Thr Ile Arg  
                                  100                      105                      110  
 Asp Ile Phe Gly Phe Ile Gly Ala Ser Ala Ala Ser Met Leu Ile Phe  
                                  115                      120                      125  
 Ile Leu Pro Ser Ala Phe Tyr Ile Lys Leu Val Lys Lys Glu Pro Met  
                                  130                      135                      140  
 Lys Ser Val Gln Lys Ile Gly Ala Leu Phe Phe Leu Leu Ser Gly Val  
                                  145                      150                      155                      160  
 Leu Val Met Thr Gly Ser Met Ala Leu Ile Val Leu Asp Trp Val His  
                                  165                      170                      175  
 Asn Ala Pro Gly Gly Gly His  
                                  180

<210> 400  
 <211> 38  
 <212> PRT  
 <213> Homo sapiens

<400> 400  
 Met Val Ser Lys His Ser Leu Asn Leu His Phe Phe Tyr Trp Lys Gly  
   1                      5                      10                      15  
 Gly Cys Ala Cys Phe Thr Ser Glu Pro Arg Val Phe Val Val Val Glu  
                                  20                      25                      30  
 Leu Ser Leu Leu Asp Cys  
                                  35

<210> 401  
 <211> 38  
 <212> PRT  
 <213> Homo sapiens

<400> 401  
 Met Val Ser Lys His Ser Leu Asn Leu His Phe Phe Tyr Trp Lys Gly  
   1                      5                      10                      15  
 Gly Cys Ala Cys Phe Thr Ser Glu Pro Arg Val Phe Val Val Val Glu  
                                  20                      25                      30  
 Leu Ser Leu Leu Asp Cys  
                                  35

<210> 402

<211> 92  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (10)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 402  
 Ile Gly Pro Leu Leu Val Tyr Val Ser Xaa Thr His Glu Ser Leu Lys.  
           1                  5                  10                  15  
 Leu Trp Gln Leu Lys Glu Thr Leu Ile Gln Ser Phe Pro Ala Leu Val  
                   20                  25                  30  
 Arg Ser Leu Gly Pro Gly Leu Leu Phe Gly Pro Pro Ile Ala Thr Gly  
           35                  40                  45  
 Xaa Thr Gln Ala Gly Asp Met Ala Asp Lys Ser Gln Ala Gly Pro Arg  
           50                  55                  60  
 Gly Ser Val Ser Ser Val Ala Trp Gly Pro Phe Pro Gly Gly Ser Gly  
           65                  70                  75                  80  
 Ala Leu Ala Phe Cys Pro Leu Ile Leu Arg Ser His  
                   85                  90

<210> 403  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 403  
 Met His Ile Phe Thr Ile Leu Tyr Pro Ile Ser Glu Gly Phe Phe Lys  
           1                  5                  10                  15  
 Ile Phe Asn Phe Ile Val Phe Phe  
                   20

<210> 404  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 404

Xaa Ser Gly Asp Leu Pro Thr Ser Ala Phe Pro Lys Cys Trp Asp Tyr  
 1 5 10 15  
 Arg Pro Glu Pro Pro Cys Pro Ala Gln Ala Gln Thr Ser Val Leu Cys  
 20 25 30  
 Val Thr Ser Trp Ser Arg Leu Thr Val Ser Thr Leu Thr Ser Thr Ser  
 35 40 45  
 Gln Ala Glu Gly Val Arg Ala Leu Pro Ile Trp Pro Ser Ser Gln Val  
 50 55 60  
 Cys Ser Ile Gln Pro  
 65

<210> 405  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 405  
 Ser Gln Gln Thr Leu Leu Ile Arg Pro Cys Cys Asn Lys Gln Thr Pro  
 1 5 10 15  
 Ile Thr Asn His Pro His Cys Thr Gly Gly Gly His Gly Lys His Lys  
 20 25 30  
 Gln Thr Leu Pro Thr Pro Ser Cys Asn Lys Arg His Lys Val Ile Cys  
 35 40 45  
 Ser Lys Ile Asn Gln Gln Thr Thr Pro Gly Cys Gly His Thr Lys Glu  
 50 55 60  
 Leu His Gln Thr Pro Leu Pro Asn Ile Asn Pro Ser Phe Cys Lys Leu  
 65 70 75 80  
 Gly Ala Thr Ser Ser Leu Thr Val Lys Gly Ala Ala Ser Arg Leu Ile  
 85 90 95  
 Lys Ser Tyr Leu Pro Lys Lys Lys Lys Lys Lys Asn Ser Arg  
 100 105 110

<210> 406  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 406  
 Met Val Phe Phe Gln Ile Gln Ser Leu Leu Ser Phe Leu Ala Ser Ser  
 1 5 10 15



Leu Ser Ile Ile Phe Leu Leu Pro Arg Cys Leu Ile Pro Pro Ala Asn  
                   20                  25                  30  
 Gly Thr Ala Gly Ser Ser Cys Ser Glu Phe Gln Thr Leu His Thr Phe  
                   35                  40                  45  
 His Pro Gln Ala Ser Cys Ala His Ala Gly Pro Ser Asn Leu Tyr Thr  
                   50                  55                  60  
 Phe Leu Xaa Leu Phe Asp Leu Ser Ala Lys Val Ser Pro Leu Met  
                   65                  70                  75

<210> 407  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<400> 407  
 Met Val Phe Phe Gln Ile Gln Ser Leu Leu Ser Phe Leu Ala Ser Ser  
           1                  5                  10                  15  
 Leu Ser Ile Ile Phe Leu Leu Pro Arg Cys Leu Ile Pro Pro Ala Asn  
                   20                  25                  30  
 Gly Thr Ala Gly Ser Ser Cys Ser Glu Phe Gln Thr Leu His Thr Phe  
                   35                  40                  45  
 His Pro Gln Ala Ser Cys Ala His Ala Gly Pro Ser Asn Leu Tyr Thr  
                   50                  55                  60  
 Phe Leu Arg Leu Phe Asp Leu Ser Ala Lys Val Ser Pro Leu Met  
                   65                  70                  75

<210> 408  
 <211> 325  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (10)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (136)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (186)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (234)

<400> 408

220

Pro Gly Lys Pro Lys Gly Lys Arg Arg Arg Arg Gly Trp Arg Arg  
 305 310 315 320

Val Thr Glu Gly Lys  
 325

<210> 409

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (145)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 409

Met Thr Thr Trp Ser Cys Leu Val Ala Met Ile Val Ser Gly Val Ile  
 1 5 10 15

Thr Ala Val Trp Ala Val Arg Ala Ala Pro Ile Trp Arg Ser Gln Val  
 20 25 30

Lys Gln Lys Met Arg Ile Gly Lys Gln Gly Asn Cys Arg Pro Pro Arg  
 35 40 45

Cys Ile Cys Ser Ala Leu Gly Leu Leu Ala Pro Trp Met Ala Val Val  
 50 55 60

Leu Ser Gln Leu Ser Val Arg Cys Val Val Ser Trp Val Gln Gly Lys  
 65 70 75 80

Pro Ser Ser Pro Arg Pro Arg Gly Ser Ala Ala Ser Pro Ala Pro Gly  
 85 90 95

Ala Thr Pro Pro Thr Pro Arg Lys Pro Val Ser Trp Leu Gly Tyr Arg  
 100 105 110

Glu Asn His Arg Pro Lys Lys Pro Lys Ser Xaa Thr Arg Cys Leu Val  
 115 120 125

Xaa Gln Asn Trp Ser Leu Pro Pro Ile Ser Lys Asp Arg Thr Ala Gly  
 130 135 140

Xaa Xaa Asp Thr Asn Arg Thr Arg Arg Ser Gly Leu Xaa Leu Arg Leu  
 145 150 155 160

Gly

<210> 410

<211> 57

<212> PRT

<213> Homo sapiens

<400> 410

Arg Pro Val Ser Thr Lys Lys Lys Lys Val Ser Trp Ala Trp Trp Cys  
 1 5 10 15

Thr Ser Ile Ala Pro Ala Thr Leu Glu Ala Lys Val Arg Gly Leu Leu  
 20 25 30

Glu Pro Gly Arg Ser Val Ser Ala Val Ser Cys Asp Pro Ala Asn Ala  
 35 40 45

Leu Ser Leu Gly Ser Val Arg Pro Cys  
 50 55

<210> 411

<211> 58

<212> PRT

<213> Homo sapiens

<400> 411

Val Leu Cys Leu Gln Ile Tyr Cys Gln Thr Arg Phe Ser Ser Ser Leu  
 1 5 10 15

Ser Thr Ser Phe Thr Val Leu Asn Cys Met Tyr Arg Ser Val Ile Leu  
 20 25 30

Ser Glu Leu Thr Phe Val Lys Asp Lys Arg Ser Val Leu Asp Arg Tyr  
 35 40 45

Phe Pro Phe Ala Cys Gly Cys Pro Ala Pro  
 50 55

<210> 412

<211> 141

<212> PRT

<213> Homo sapiens

<400> 412

Met Lys Ser Thr Leu Ser Ile Phe Ser Leu Trp Val Met Ile Phe Val  
 1 5 10 15  
 Leu Cys Leu Gln Ile Tyr Cys Gln Thr Arg Phe Ser Ser Ser Leu Ser  
 20 25 30  
 Thr Ser Phe Thr Val Leu Asn Cys Met Tyr Arg Ser Val Ile Leu Ser  
 35 40 45  
 Glu Leu Thr Phe Val Lys Asp Lys Arg Ser Val Leu Asp Arg Leu Phe  
 50 55 60  
 Phe Leu Leu His Val Val Val Gln His His Glu Asp Ser Ser Phe Ser  
 65 70 75 80  
 Thr Glu Leu Ser Leu Tyr Phe Cys Gln Arg Ser Asp Leu Pro Leu Lys  
 85 90 95  
 Ser Leu Ser Asn Leu Ser Thr Ser His His Leu His Phe Gln Ser Leu  
 100 105 110  
 Arg Thr Arg Gly Arg Thr Arg Gly Ser Thr Arg Glu Phe Arg Thr Gly  
 115 120 125  
 Thr Cys Arg Arg Thr Ser Phe Pro Tyr Ser Glu Ser Tyr  
 130 135 140

&lt;210&gt; 413

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 413

Met Lys Ser Thr Leu Ser Ile Phe Ser Leu Trp Val Met Ile Phe Val  
 1 5 10 15  
 Leu Cys Leu Gln Ile Tyr Cys Gln Thr Arg Phe Ser Ser Ser Leu Ser  
 20 25 30  
 Thr Ser Phe Thr Val Leu Asn Cys Met Tyr Arg Ser Val Ile Leu Ser  
 35 40 45  
 Glu Leu Thr Phe Val Lys Asp Lys Arg Ser Val Leu Asp Arg Leu Phe  
 50 55 60  
 Phe Leu Leu His Val Val Val Gln His His Glu Asp Ser Ser Phe Ser  
 65 70 75 80  
 Thr Glu Leu Ser Leu Tyr Phe Cys Gln Arg Ser Asp Leu Pro Leu Lys  
 85 90 95  
 Ser Leu Ser Asn Leu Ser Thr Ser His His Leu His Phe Gln Ser Leu  
 100 105 110  
 Gln Ala Thr Ile Leu Ser Cys Leu Ile Ile Ala Val Val Leu Thr Gly  
 115 120 125  
 Leu Ala Leu Ser Val Asp Pro Cys Phe Ile His Arg Ile

130

135

140

<210> 414  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 414  
 Met Leu Glu Thr Leu Ser Gln Phe Ile Ser Ile Leu Phe Val Leu Leu  
 1 5 10 15  
 Trp Ile Ile Ser Asp Leu Ile Leu Cys Phe Leu Lys Cys Gly Asn Pro  
 20 25 30  
 Gly Thr Leu Asp Met Val Leu Pro Ile Trp Thr Asn Gln Tyr Ile His  
 35 40 45  
 Ser Ser Arg Ser Ile Leu Ser Phe Ile  
 50 55

<210> 415  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 415  
 Met Leu Glu Thr Leu Ser Gln Phe Ile Ser Ile Leu Phe Val Leu Leu  
 1 5 10 15  
 Trp Ile Ile Ser Asp Leu Ile Leu Cys Phe Leu Lys Cys Gly Asn Pro  
 20 25 30  
 Gly Thr Leu Asp Met Val Leu Pro Ile Trp Thr Asn Gln Tyr Thr His  
 35 40 45  
 Ser Ser Arg Ser Ile Leu Ser Phe Ile  
 50 55

<210> 416  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (14)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (59)  
 <223> Xaa equals any of the naturally occurring L-amino acids.  
 <220>

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 416

Leu Leu Phe Leu Leu Gly Met Ala Trp Phe Asn Asp Trp Xaa Ala Ala  
 1 5 10 15

Leu Tyr Met Pro Ala Phe Cys Ala Ile Leu Val Ala Leu Phe Ala Phe  
 20 25 30

Ala Met Met Arg Asp Thr Pro Gln Ser Cys Gly Leu Pro Pro Ile Glu  
 35 40 45

Glu Tyr Lys Asn Asp Tyr Pro Asp Asp Tyr Xaa Glu Lys Ala Glu Gln  
 50 55 60

Glu Leu Thr Xaa Lys Gln Pro Gly Gly Arg Arg Leu Trp Leu His Pro  
 65 70 75 80

Ala Tyr Thr Ala Ala  
 85

&lt;210&gt; 417

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 417

Met Leu Phe Met Gly Phe Val Pro Trp Ala Thr Ser Ser Ile Ala Val  
 1 5 10 15

Met Phe Val Leu Leu Phe Leu Cys Gly Trp Phe Gln Gly Met Gly Trp  
 20 25 30

Pro Pro Cys Gly Arg Thr Met Val His Trp Trp Ser Gln Lys Glu Arg  
 35 40 45

Gly Gly Ile Val Ser Val Trp Asn Cys Ala His Asn Val Gly Gly Trp  
 50 55 60

Val Phe  
 65

&lt;210&gt; 418

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 418

Met Leu Phe Met Gly Phe Val Pro Trp Ala Thr Ser Ser Ile Ala Val  
 1 5 10 15

Met Phe Val Leu Leu Phe Leu Cys Gly Trp Phe Gln Gly Met Gly Trp  
 20 25 30

[illegible]

```
<210> 419
<211> 85
<212> PRT
<213> Homo sapiens
```

```

<400> 419
Met Val Met Gly Leu Lys Ala Leu Pro Glu Pro Phe Met Ser Leu Val
  1                      5                      10                      15

Ser His Leu Leu Arg Thr Phe Phe Leu Val Trp Phe Val Gly Leu Pro
      20                      25                      30

Val Ala Ile Leu Gly Asn Leu Leu Glu Cys Tyr Ala Asn Val Phe Thr
      35                      40                      45

Gly Asn Gly Gly Gly Pro Glu Pro Trp Gly Gly His Leu Val Ser Glu
      50                      55                      60

Cys Leu Ala Leu Pro Gln Leu Gly Ile Gln Tyr Leu Ala Leu Ser Gly
      65                      70                      75                      80

Gly Ile Ile Trp Leu
      85

```

```
<210> 420
<211> 85
<212> PRT
<213> Homo sapiens
```

```
<400> 420
Met Val Met Gly Leu Lys Ala Leu Pro Glu Pro Phe Met Ser Leu Val
  1             5             10             15
```



Ser His Leu Leu Arg Thr Phe Phe Leu Val Trp Phe Val Gly Leu Pro  
                   20                                  25                                  30

Val Ala Ile Leu Gly Asn Leu Leu Glu Cys Tyr Ala Asn Val Phe Thr  
                   35                                  40                                  45

Gly Asn Gly Gly Gly Pro Glu Pro Trp Gly Gly His Leu Val Ser Glu  
                   50                                  55                                  60

Cys Leu Ala Leu Pro Gln Leu Gly Ile Gln Tyr Leu Ala Leu Ser Gly  
                   65                                  70                                  75                                  80

Gly Ile Ile Trp Leu  
                                   85

<210> 421  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 421  
 Met Trp Glu Thr Tyr Ile Trp Leu Val Leu Thr Phe Ala Gln Lys Ala  
           1                                  5                                  10                                  15

Cys Cys Met Lys Leu Thr Ala Thr Met Leu Lys Gln Ile His Ile Lys  
                   20                                  25                                  30

Lys Cys Arg Ser Ile Gln Trp Leu Leu Arg Val Asn Ser Phe Met Glu  
                   35                                  40                                  45

Ser Ser Met Ser Leu Ser Ser Lys Ile Arg Pro His Gln Arg Arg Asn  
           50                                  55                                  60

<210> 422  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 422  
 Met Trp Glu Thr Tyr Ile Trp Leu Val Leu Thr Phe Ala Gln Lys Ala  
           1                                  5                                  10                                  15

Cys Cys Met Lys Leu Thr Ala Thr Met Leu Lys Gln Ile His Ile Lys  
                   20                                  25                                  30

Lys Cys Arg Ser Ile Gln Trp Leu Leu Arg Val Asn Ser Phe Met Glu  
                   35                                  40                                  45

Ser Ser Met Ser Leu Ser Ser Lys Ile Arg Pro His Gln Arg Arg Asn  
           50                                  55                                  60

<210> 423  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 423  
 Ser Gln Leu Leu Arg Lys Leu Arg Trp Glu Asp Gly Leu Ser Leu Gly  
           1                  5                  10                  15  
 Gly Arg Val Cys Ser Glu Pro Arg Leu His His Cys Thr Pro Ala Trp  
                   20                  25                  30  
 Val Ile Gly Pro Gly Leu Val Leu Thr Thr Thr Thr Glu Lys Lys  
                   35                  40                  45

<210> 424  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (23)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 424  
 Ile Glu Thr Xaa Arg Phe Gly Gly Lys Gln Met Glu Leu Gln Glu Ile  
           1                  5                  10                  15  
 Lys Ser Ile Ile Ser Ser Xaa Met Trp Trp Leu Met Pro Leu Ile Leu  
                   20                  25                  30  
 Val Thr Gln Glu Ala Glu Ala Gly Gly Ser Leu Glu Ala Arg Ser Leu  
                   35                  40                  45  
 Arg Pro Pro Trp Ala Thr  
           50

<210> 425  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (195)  
 <223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 425

Lys Ala Gly Thr Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro  
 1 5 10 15

Thr Arg Pro Ile Tyr Ile Arg Arg Tyr Val Phe Lys Leu Gly Val Leu  
 20 25 30

Gly Trp Gly Ala Pro Ala Leu Leu Val Leu Leu Ser Leu Ser Val Lys  
 35 40 45

Ser Ser Val Tyr Gly Pro Cys Thr Ile Pro Val Phe Asp Ser Trp Glu  
 50 55 60

Asn Gly Thr Gly Phe Gln Asn Met Ser Ile Cys Trp Val Arg Ser Pro  
 65 70 75 80

Val Val His Ser Val Leu Val Met Gly Tyr Gly Gly Leu Thr Ser Leu  
 85 90 95

Phe Asn Leu Val Val Leu Ala Trp Ala Leu Trp Thr Leu Arg Arg Leu  
 100 105 110

Arg Glu Arg Ala Asp Ala Pro Ser Val Arg Ala Cys His Asp Thr Val  
 115 120 125

Thr Val Leu Gly Leu Thr Val Leu Leu Gly Thr Thr Trp Ala Leu Ala  
 130 135 140

Phe Phe Ser Phe Gly Val Phe Leu Leu Pro Gln Leu Phe Leu Phe Thr  
 145 150 155 160

Ile Leu Asn Ser Leu Tyr Gly Phe Phe Leu Phe Leu Trp Phe Cys Ser  
 165 170 175

Gln Arg Cys Arg Ser Glu Ala Glu Ala Lys Ala Gln Ile Glu Ala Phe  
 180 185 190

Ser Ser Xaa Gln Thr Thr Gln  
 195

&lt;210&gt; 426

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 426

Met Ser Ser Leu Ala Ser Trp Trp Pro Ser Tyr Gly Arg Thr Gln Met

1	5	10	15
Asn Ser Arg Ala Ser Val Ala Gly Pro Ser Trp Leu Phe Cys Ser Ala	20	25	30
Pro Phe Pro His Cys Leu Ser Tyr Arg Ser His Cys Ser Ser Ser Cys	35	40	45
Leu Thr Arg Pro Pro Gly Ala Trp Gln Arg Cys Ala Ser Thr Ser Cys	50	55	60
Trp Gly Pro Trp Ser Ser Arg Ser Trp Pro Arg Gly Pro Leu Gly Pro	65	70	75
Thr Pro Arg Pro Ser Trp Ser Gly Trp Pro Asp Gly Gly Gly Ala Ala	85	90	95
Trp Arg Trp Met Cys Ser Pro Ser Ala Arg Ser Ala Thr Arg Pro Arg	100	105	110
Trp Ser Leu Gly Pro Pro Gly Ser Ser Trp Leu Gly Gly Ser Cys Arg	115	120	125
Ala Glu Ala Trp Xaa Arg Leu Pro Gly Ala Gly Leu Cys His Cys Thr	130	135	140
Pro Xaa Thr His Gly Arg Thr Trp Leu Ala Ala Thr Leu Cys Trp Thr	145	150	155
			160

&lt;210&gt; 427

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 427

Trp Pro Ser Ser Ser Arg Thr Leu Ser Ser Ser Arg Arg
1 5 10

&lt;210&gt; 428

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 428

Ile Leu Lys Ser Glu Pro Lys Leu Val Ser Phe Ile Asn Ile Leu Gly
1 5 10 15

Lys Glu Glu Arg Lys Lys Glu Gly Gly Arg Glu Arg Lys Lys Glu Arg
20 25 30

Lys Lys Glu Arg Lys Lys Glu Arg Lys Lys Lys Lys Asn Ser
35 40 45

&lt;210&gt; 429

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 429

Met Ser Leu Ile Trp Arg Asp Val Tyr Leu Tyr Gly Cys Gly Cys Ile  
 1 5 10 15

Cys His Gly Arg Cys Cys Ala Gly Phe Pro Gln His Ser Arg His Val  
 20 25 30

Trp Arg Thr Asn Ala Gly Leu Ile Leu Pro Gly Asn Arg Val Pro Phe  
 35 40 45

Cys Glu Leu Glu Gly Cys Thr Arg Arg Ser Ser Tyr Trp Asn His Leu  
 50 55 60

Val Ile Leu Gly Gly His Trp Gly Leu His Leu Pro Cys Thr Ser Leu  
 65 70 75 80

&lt;210&gt; 430

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 430

Met Ser Leu Ile Trp Arg Asp Val Tyr Leu Tyr Gly Cys Gly Cys Ile  
 1 5 10 15

Cys His Gly Arg Cys Cys Ala Gly Phe Pro Gln His Ser Arg His Val  
 20 25 30

Trp Arg Thr Asn Ala Gly Leu Ile Leu Pro Gly Asn Arg Val Pro Phe  
 35 40 45

Cys Glu Leu Glu Gly Cys Thr Arg Arg Ser Ser Tyr Trp Asn His Leu  
 50 55 60

Val Ile Leu Gly Gly His Trp Gly Leu His Leu Pro Cys Thr Ser Leu  
 65 70 75 80

&lt;210&gt; 431

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

<221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (17)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 431  
 Leu Gly Lys Val Gly Asn Xaa Cys Arg Tyr Arg Ser Xaa Ile Pro Gly  
     1                    5                    10                    15  
 Xaa Thr His Ala Ser Gly Leu Glu Ser Thr Phe Glu Leu Pro Glu Glu  
                     20                    25                    30  
 Phe Arg Phe Leu Leu Val Ser Phe Val Phe Gln Thr His Glu Met Ala  
                     35                    40                    45  
 Thr Asp Asp Lys Thr Ser Pro Thr Leu Asp Ser Ala Asn Asp Leu Pro  
                     50                    55                    60  
 Arg Ser Pro Thr Ser Ser Ser His Leu Thr His Phe Lys Pro Leu Thr  
                     65                    70                    75                    80  
 Pro Asp Gln Asp Glu Pro Pro Phe Lys Ser Ala Tyr Ser Ser Phe Val  
                     85                    90                    95  
 Asn Leu Phe Arg Phe Asn Lys Gly Lys Thr Tyr  
                     100                    105

<210> 432  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 432  
 Met Cys Cys Arg Ala Ile Ser Gly Cys Cys Gly Thr Cys Leu Ala Cys  
     1                    5                    10                    15  
 Leu Cys Ser Thr Ala Ser Gly Ala Pro Gln Pro Trp Pro Cys Ser Arg  
                     20                    25                    30  
 Gln Ser Thr Trp Arg Leu Ile Pro Arg Pro Ser Ala Pro Thr  
                     35                    40                    45

<210> 433  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 433  
 Ser Gly Phe Val Xaa Ala Trp Ser Ile Leu Thr Pro Gly Cys Ile Ser  
   1                  5                  10                  15  
 Pro Ala Gly Glu Lys Cys Arg Gly Gly Lys Gln Ser Leu Gly Thr Asn  
                   20                  25                  30  
 Tyr Phe Xaa Xaa Val Leu Leu Ala Thr Asp Ser  
           35                  40

<210> 434  
 <211> 76  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (73)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 434  
 Met His Leu Pro Leu Ser Thr Lys Gly Ile Leu Pro Arg Ile Leu Leu  
   1                  5                  10                  15  
 Leu Phe Ile Lys Thr Leu Phe Ala Phe Leu Leu Ser Asp Gln Cys Lys  
                   20                  25                  30  
 Gly Leu Ala His Leu Trp Leu Arg Arg Arg Glu Cys Gly Pro Gly Gly  
           35                  40                  45  
 Leu Thr Cys Ala Ala Glu Glu Leu Lys Ser Tyr Thr Ser Ile Phe Ala  
   50                  55                  60  
 Pro Lys Leu Gly Val Val Gly Gly Xaa Glu Met Lys  
   65                  70                  75

<210> 435  
 <211> 38  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (14)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 435  
 Pro Ile Ser Thr Lys Asn Arg Lys Ile Ser Arg Xaa Trp Xaa Cys Val  
           1                  5                  10                  15  
 Pro Val Ile Pro Ala Thr Arg Glu Ala Glu Ala Gly Glu Ser Leu Glu  
                   20                  25                  30  
 Pro Arg Arg Trp Arg Xaa  
                   35

<210> 436  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 436  
 Leu Tyr Gly Lys Ser Lys Thr Glu Val Lys Ile Ser Pro Val Ser Asn  
           1                  5                  10                  15  
 Leu His Ser Phe Arg Leu Gln Gly Val Ser Leu Tyr Val Glu Ala Gly  
                   20                  25                  30  
 Ser Leu Val Glu Phe Gln Gly Ser Lys Arg Gly Thr Asn Ile Cys Arg  
           35                  40                  45  
 Phe Cys Leu Leu Trp Gly Asn Ser Phe Asn His Gln Glu Asn Ser Ser  
           50                  55                  60  
 Ile Gly Phe Ile Cys Ser Gly Leu Pro Arg  
           65                  70

<210> 437  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 437  
 Met Ala Trp Ser Arg Ala Ala Trp Thr Val Met Arg Ser Leu Leu Ile  
           1                  5                  10                  15  
 Cys Trp Leu Val Ser Ala Tyr Ile Leu Ala Thr Val Thr Asp Val Gln



20 25 30

Gly Ser His Ile Gly Ile Pro Gly Ser Leu Leu Glu Leu Arg His His  
 35 40 45

Pro Arg Ser Asn Glu Ser Glu Ser Ala Cys  
 50 55

<210> 438  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 438  
 Met Ala Trp Ser Arg Ala Ala Trp Thr Val Met Arg Ser Leu Leu Ile  
 1 5 10 15

Cys Trp Leu Val Ser Ala Tyr Ile Leu Ala Thr Val Thr Asp Val Gln  
 20 25 30

Gly Ser His Ile Gly Ile Pro Gly Ser Leu Leu Glu Leu Arg His His  
 35 40 45

Pro Arg Ser Asn Glu Ser Glu Ser Ala Cys  
 50 55

<210> 439  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 439  
 Trp Arg Arg Gln Ala Arg Val Glu Ser Leu Leu Pro Met Leu  
 1 5 10

<210> 440  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 440  
 Met Trp Asp Leu Ser Pro Ser Thr Leu Ser Leu Leu Leu Leu Ser  
 1 5 10 15

Pro Cys Asp Val Pro Ala Leu Ala Leu Pro Ser Ala Met Ser Lys Ser  
 20 25 30

Leu Leu Ser Leu Leu Arg Ser Arg Cys Cys His Ala Ser Trp Thr Ala  
 35 40 45

Cys Arg Thr Val Asn Gln Leu Asn Leu Phe Ser Leu  
 50 55 60

<210> 441  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 441  
 Pro Cys Asp Val His Phe  
 1 5

<210> 442  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 442  
 Met Trp Asp Leu Ser Pro Ser Thr Leu Ser Leu Leu Leu Leu Ser  
 1 5 10 15

Pro Cys Asp Val Pro Ala Leu Ala Leu Pro Ser Ala Met Ser Lys Ser  
 20 25 30

Leu Leu Ser Leu Leu Arg Ser Arg Cys Cys His Ala Ser Trp Thr Ala  
 35 40 45

Cys Arg Thr Val Asn Gln Leu Asn Leu Phe Ser Leu  
 50 55 60

<210> 443  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 443  
 Met Val Glu His Leu His Leu Thr Tyr His Tyr Leu Lys Leu Pro Cys  
 1 5 10 15

Ile Phe Ala Cys Leu Leu Leu Tyr Trp Phe Ser Pro Leu Leu Asn Ser  
 20 25 30

Lys Leu Gln Asp Ser Arg Asp Leu Val Cys Phe Leu Asn Gln Trp His  
 35 40 45

Thr Val Cys Ala  
 50

<210> 444  
 <211> 8  
 <212> PRT  
 <213> Homo sapiens

<400> 444  
 Pro Cys Cys Phe Leu Cys Leu Val  
 1 5

<210> 445  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<400> 445  
 Pro Cys Cys Phe Leu Cys Leu Val Cys Ser Ser Ser Asp Ser His Lys  
           1                  5                  10                  15  
 Ala Ser Ser Ser Ser Ser Pro Thr Leu Ser Thr Pro Leu Pro Cys Leu  
                   20                  25                  30  
 Phe Ser Ser His Thr Ser Leu Leu Arg Asn Phe His Ile Ala Ser Leu  
           35                  40                  45  
 Leu Leu Thr Pro Pro Gln Ala Pro Gln Gly Trp Ala Phe Pro Ala Ser  
           50                  55                  60  
 Leu Thr Ala Ala Ala Leu Val Pro Gly Pro Val Pro Gly Thr Gln Leu  
           65                  70                  75                  80  
 Val Ala Arg Met Leu Ile Thr  
                   85

<210> 446  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Val Glu His Leu His Leu Thr Tyr His Tyr Leu Lys Leu Pro Cys  
           1                  5                  10                  15  
 Ile Phe Ala Cys Leu Leu Leu Tyr Trp Phe Ser Pro Leu Leu Asn Ser  
                   20                  25                  30  
 Lys Leu Gln Asp Ser Arg Asp Leu Val Cys Phe Leu Asn Gln Trp His  
           35                  40                  45  
 Thr Val Cys Ala  
           50

<210> 447  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 447  
 Met Pro Leu Ser Arg Phe Trp Leu Leu Leu Phe Leu Pro Ser His  
           1                  5                  10                  15  
 Ile Ser Val Leu Ser Leu Ile Arg Tyr Pro Ser Val Lys Glu Tyr  
                   20                  25                  30

<210> 448  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 448  
 Met Pro Leu Ser Arg Phe Trp Leu Leu Leu Leu Phe Leu Pro Ser His  
           1                  5                  10                  15  
 Ile Ser Val Leu Ser Leu Ile Arg Tyr Pro Ser Val Lys Glu Tyr  
                   20                  25                  30

<210> 449  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 449  
 Val Gly Ala Ser Thr Ala His Gly Leu Leu Leu Pro Leu Leu His Ile  
           1                  5                  10                  15  
 His Gly Gly Ser Ala Asn Ser Ser Ala Pro His His Pro Asn Pro Trp  
                   20                  25                  30  
 Pro Gln Ala Asp Arg Ala Trp Ser His Tyr Leu  
           35                  40

<210> 450  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 450  
 Val Gly Ala Ser Thr Ala His Gly Leu Leu Leu Pro Leu Leu His Ile  
           1                  5                  10                  15  
 His Gly Gly Ser Ala Asn Ser Ser Ala Pro His His Pro Asn Pro Trp  
                   20                  25                  30  
 Pro Gln Ala Asp Arg Ala Trp Ser His Tyr Leu  
           35                  40

<210> 451  
 <211> 26  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 451

Gln Phe Lys Gln Tyr Arg Tyr Ala Xaa Gly Met Leu Arg Gly Pro His  
 1 5 10 15

Ile Pro Val Ser Tyr Pro Asn Met Tyr Phe  
 20 25

&lt;210&gt; 452

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 452

Met His Phe Ala Ala Pro Phe Gln Leu Gln Ser Gln Thr Phe Arg Tyr  
 1 5 10 15

Glu Val Gly Ser Val Arg Lys Ser Gln Gln Val Leu Lys Ala Val Val  
 20 25 30

Thr Ala Leu Leu Ile Pro Ala Phe Ser Ser Leu Ser Ser Lys Ala Cys  
 35 40 45

Lys Ala Ser Phe Gly Lys Lys Lys Lys Xaa Lys Gly Lys Xaa  
 50 55 60

&lt;210&gt; 453

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 453

Glu Gln Leu Leu Glu Ser Ser Leu Ser Ser Thr Ser Cys Glu Thr Leu  
 1 5 10 15

Ser Ser Tyr Ala Ser Gly Arg Trp Leu Leu Ser Pro His Thr Pro Ala  
 20 25 30

Cys Arg Val Arg Xaa Tyr Ile Xaa Gly Thr Asp Arg Met Trp Xaa Pro  
 35 40 45

Arg Ser Met Pro Ser Ala Thr Asp Ile Ala  
 50 55

&lt;210&gt; 454

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 454

Met Ser Ala Thr His Pro Val Pro Trp Ser Val Thr Thr Trp Cys Phe  
 1 5 10 15

Phe Cys Thr Trp Asn Ala Thr Cys Ser Ala Gly Pro Ser Pro Gly His  
 20 25 30

Arg Val Ser Ser Ser Thr Ala Ser Phe Ile Arg Val Ser Tyr Phe Pro  
 35 40 45

Ser Tyr Phe Ser Ser Pro Leu Ser Val Thr Cys Val Pro Val Ser Ser  
 50 55 60

&lt;210&gt; 455

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 455

Glu Ala Lys Ala Gln Phe Trp Leu Leu His Ser Tyr Leu Phe Cys His  
 1 5 10 15

Ser Ser Asn Val Pro Asp Leu Leu Arg Pro Arg Met Thr Asn Asp Ser  
 20 25 30

Glu Gly Lys Met Gly Phe Lys His Pro Lys Ile Met Gly Asn Phe Arg  
 35 40 45

Gly His Ala Leu Pro Gly Thr Phe Phe Phe Ile Ile Gly Leu Trp Trp  
 50 55 60

Cys Thr Lys Ser Ile Leu Lys Tyr Ile Cys Lys Lys Gln Lys Arg Thr  
 65 70 75 80

Cys Tyr Leu Gly Ser Lys Thr Leu Phe Tyr Arg Leu Glu Ile Leu Glu

				85						90							95
Gly	Ile	Thr	Ile	Val	Gly	Met	Ala	Leu	Thr	Gly	Met	Ala	Gly	Glu	Gln		
			100					105					110				
Phe	Ile	Pro	Gly	Gly	Pro	His	Leu	Met	Leu	Tyr	Asp	Tyr	Lys	Gln	Gly		
		115					120					125					
His	Trp	Asn	Gln	Leu	Leu	Gly	Trp	His	His	Phe	Thr	Met	Tyr	Phe	Phe		
	130					135					140						
Phe	Gly	Leu	Leu	Gly	Val	Ala	Asp	Ile	Leu	Cys	Phe	Thr	Ile	Ser	Ser		
145					150					155					160		
Leu	Pro	Val	Ser	Leu	Thr	Lys	Leu	Met	Leu	Ser	Asn	Ala	Leu	Phe	Val		
				165					170					175			
Glu	Ala	Phe	Ile	Phe	Tyr	Asn	His	Thr	His	Gly	Arg	Glu	Met	Leu	Asp		
			180					185					190				
Ile	Phe	Val	His	Gln	Leu	Leu	Val	Leu	Val	Val	Phe	Leu	Thr	Gly	Leu		
	195						200					205					
Val	Ala	Phe	Leu	Glu	Phe	Leu	Val	Arg	Asn	Asn	Val	Leu	Leu	Glu	Leu		
	210						215				220						
Leu	Arg	Ser	Ser	Leu	Ile	Leu	Leu	Gln	Gly	Ser	Trp	Phe	Phe	Gln	Ile		
225					230					235					240		
Gly	Phe	Val	Leu	Tyr	Pro	Pro	Ser	Gly	Gly	Pro	Ala	Trp	Asp	Leu	Met		
				245					250					255			
Asp	His	Glu	Asn	Ile	Leu	Phe	Leu	Thr	Ile	Cys	Phe	Cys	Trp	His	Tyr		
			260					265					270				
Ala	Val	Thr	Ile	Val	Ile	Val	Gly	Met	Asn	Tyr	Ala	Phe	Ile	Thr	Trp		
		275					280						285				
Leu	Val	Lys	Ser	Arg	Leu	Lys	Arg	Leu	Cys	Ser	Ser	Glu	Val	Gly	Leu		
	290					295					300						
Leu	Lys	Asn	Ala	Glu	Arg	Glu	Gln	Glu	Ser	Glu	Glu	Glu	Met				
305					310					315							

<210> 456

<211> 24

<212> PRT

<213> Homo sapiens

**<220>**

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 456

Leu Xaa Lys. Leu Lys Met Phe Tyr Lys Phe Ala Phe Lys Phe Ser Tyr  
1 5 10 15

Glu Ala Ile Cys Lys Leu His Thr  
20

<210> 457  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 457  
Met Val Ser Ile Leu Tyr Leu Gly Leu Phe Phe Leu Asn Ser Ser Val  
1 5 10 15

Leu Tyr Ala

<210> 458  
<211> 282  
<212> PRT  
<213> Homo sapiens

<400> 458  
Val Asn Arg Pro Ser Trp Ile Met Gly Asn Phe Arg Gly His Ala Leu  
1 5 10 15

Pro Gly Thr Phe Phe Phe Ile Ile Gly Leu Trp Trp Cys Thr Lys Ser  
20 25 30

Ile Leu Lys Tyr Ile Cys Lys Lys Gln Lys Arg Thr Cys Tyr Leu Gly  
35 40 45

Ser Lys Thr Leu Phe Tyr Arg Leu Glu Ile Leu Glu Gly Ile Thr Ile  
50 55 60

Val Gly Met Ala Leu Thr Gly Met Ala Gly Glu Gln Phe Ile Pro Gly  
65 70 75 80

Gly Pro His Leu Met Leu Tyr Asp Tyr Lys Gln Gly His Trp Asn Gln  
85 90 95

Leu Leu Gly Trp His His Phe Thr Met Tyr Phe Phe Phe Gly Leu Leu  
100 105 110

Gly Val Ala Asp Ile Leu Cys Phe Thr Ile Ser Ser Leu Pro Val Ser  
115 120 125

Leu Thr Lys Leu Met Leu Ser Asn Ala Leu Phe Val Glu Ala Phe Ile  
130 135 140

Phe Tyr Asn His Thr His Gly Arg Glu Met Leu Asp Ile Phe Val His  
145 150 155 160

Gln Leu Leu Val Leu Val Val Phe Leu Thr Gly Leu Val Ala Phe Leu  
165 170 175

Glu Phe Leu Val Arg Asn Asn Val Leu Leu Glu Leu Leu Arg Ser Ser  
180 185 190



Leu Ile Leu Leu Gln Gly Ser Trp Phe Phe Gln Ile Gly Phe Val Leu  
 195 200 205  
 Tyr Pro Pro Ser Gly Gly Pro Ala Trp Asp Leu Met Asp His Glu Asn  
 210 215 220  
 Ile Leu Phe Leu Thr Ile Cys Phe Cys Trp His Tyr Ala Val Thr Ile  
 225 230 235 240  
 Val Ile Val Gly Met Asn Tyr Ala Phe Ile Thr Trp Leu Val Lys Ser  
 245 250 255  
 Arg Leu Lys Arg Leu Cys Ser Ser Glu Val Gly Leu Leu Lys Asn Ala  
 260 265 270  
 Glu Arg Glu Gln Glu Ser Glu Glu Glu Met  
 275 280

<210> 459  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 459  
 Met Val Ser Ile Leu Tyr Leu Gly Leu Phe Phe Leu Asn Ser Ser Val  
 1 5 10 15

Leu Tyr Ala

<210> 460  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 460  
 Met Arg Val Gln Glu Leu Leu Leu Phe Leu Val Gly Gly Gly Val Thr  
 1 5 10 15

Glu Gly Cys Thr Glu Glu Val Thr Pro Leu Cys Leu Phe Leu Ala Asn  
 20 25 30

Asn Glu Val Leu Arg Thr Leu Thr Cys Arg Gln Ser Leu Ala Gln  
 35 40 45

<210> 461  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 461  
 Ser Ala Gln Ala Leu His His Pro Pro His Gln Gly Pro Pro Leu Phe  
 1 5 10 15

Pro Ser Ser Ala His Pro Thr Val Pro Pro Tyr Pro Ser Gln Ala Thr  
                   20                  25                  30  
 His His Thr Thr Leu Gly Pro Gly Pro Gln His Gln Pro Ser Gly Thr  
                   35                  40                  45  
 Gly Pro His Cys Pro Leu Pro Val Thr Gly Pro His Leu Gln Pro Gln  
                   50                  55                  60  
 Gly Pro Asn Ser Ile Pro Thr Pro Thr Ala Ser Gly Phe Cys Pro His  
                   65                  70                  75                  80  
 Pro Gly Ser Val Ala Leu Pro Trp Gly Phe Lys Asp Leu Ser Arg His  
                   85                  90                  95  
 Leu Gln Cys Leu Asp Arg Phe Gln Phe Thr Glu His Arg Cys His Gln  
                   100                  105                  110  
 His Phe Lys Thr Ile Thr Met Gly Gln Gly Gly Ile Lys Met Asp Ser  
                   115                  120                  125  
 Lys Asn Ile Phe Leu Asn Val Leu  
                   130                  135

&lt;210&gt; 462

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 462

Met Ala Val Phe Leu Ile Ser Ser Ser Tyr Phe Leu Leu Cys Val Phe  
                   1                  5                  10                  15

Thr Ile Arg Ser Leu Arg Ala Trp Val Leu Pro Phe Thr Ser Val Pro  
                   20                  25                  30

Arg Ala Gln Gly Gly Ser Cys Cys Arg Ser Gln Trp Leu Tyr Lys Thr  
                   35                  40                  45

Leu Pro Pro Xaa Leu Val Cys Lys Pro Val  
                   50                  55

&lt;210&gt; 463

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 463

Met Ala Val Phe Leu Ile Ser Ser Ser Tyr Phe Leu Leu Cys Val Phe  
                   1                  5                  10                  15

Thr Ile Arg Ser Leu Arg Ala Trp Val Leu Pro Phe Thr Ser Val Pro  
                   20                                  25                                  30

Arg Ala Gln Gly Gly Ser Cys Cys Arg Ser Gln Trp Leu Tyr Lys Thr  
                   35                                  40                                  45

Leu Pro Pro Cys Leu Val Cys Lys Pro Val  
           50                                  55

<210> 464

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 464

Met Ala Val Phe Leu Ile Ser Ser Ser Tyr Phe Leu Leu Cys Val Phe  
       1                                  5                                  10                                  15

Thr Ile Arg Ser Leu Arg Ala Trp Val Leu Pro Phe Thr Ser Val Pro  
                   20                                  25                                  30

Arg Ala Gln Gly Gly Ser Cys Cys Arg Ser Gln Trp Leu Tyr Lys Thr  
                   35                                  40                                  45

Leu Pro Pro Xaa Leu Val Cys Lys Pro Val  
           50                                  55

<210> 465

<211> 58

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 465

Ser Arg Cys Ala Gly Ala Pro Leu Gln Asn Asn Gly Pro Val Arg Glu  
1 5 10 15

Ala Thr Xaa Leu Thr Leu Gln Asn Xaa Gly Pro Xaa Arg Glu Ala Thr  
20 25 30

His Leu Thr Leu Gln Asn Asn Gly Pro Met Arg Glu Ala Xaa His Leu  
35 40 45

Val Leu His Lys Trp Ser Ile Cys Leu Arg  
50 55

<210> 466

<211> 27

<212> PRT

<213> Homo sapiens

<400> 466

Met Pro Tyr Gly Pro Asp Pro Ile Leu Ser Asn Val Leu Leu Ala Gly  
1 5 10 15

Tyr Ile Val Leu Gln Thr Leu Ser Cys Pro Arg  
20 25

<210> 467

<211> 139

<212> PRT

<213> Homo sapiens

<400> 467

Met Val Thr Val Gly Leu Val Ile Cys Phe Ser Glu Trp Cys Cys Ala  
1 5 10 15

Gly Gly Leu Ser Ala Glu Gln Thr Val Ser Asp Lys His Ile Asp Ala  
20 25 30

Leu Met Lys Glu Lys Glu Ala Gly Lys Ser Ser Gly His Tyr Asp Pro  
35 40 45

Arg His Gln Gly Gln Ala Leu Glu Glu Pro Ser Val His Ser Cys Ile  
50 55 60

Tyr Tyr Leu Leu Thr Glu Gln Thr Gln Lys Val Ser Thr Arg Thr Ser  
65 70 75 80

Leu Leu Arg Tyr Arg Trp Pro Cys Glu Glu Val Gly Trp Cys Trp Gly  
85 90 95

Leu Asp Leu Thr Gly Cys Pro Val Val Ile Gln His Glu Gly Val Ala  
100 105 110

Gly Ser Glu Ile Ile Ile Ser Asp Tyr Pro Leu Thr Asn Glu Asn Ile  
115 120 125

Lys Gly Ile Pro Glu Ile Cys Leu Phe His Ile  
 130 135

<210> 468  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 468  
 Met Leu Ala Ile Lys Val Leu Ile Val Val Phe Leu Leu Gln Leu Ser  
 1 5 10 15  
 Trp Cys Phe Leu Leu Val Leu Leu Phe His Ser Leu Ile Lys Gly Thr  
 20 25 30

Met Ile Asp Ile Pro Ala Pro Tyr Lys Glu Ile  
 35 40

<210> 469  
 <211> 38  
 <212> PRT  
 <213> Homo sapiens

<400> 469  
 Cys Phe Leu Leu Ala Asp Val Gly Asn Ser Ile Ile Phe Ile Thr Asn  
 1 5 10 15  
 Phe Met Glu Gln His Gln Phe Arg Val Lys Leu Glu Asn Gln Cys Ile  
 20 25 30

Leu Ile Phe Val Asp Tyr  
 35

<210> 470  
 <211> 4  
 <212> PRT  
 <213> Homo sapiens

<400> 470  
 Val Gly Phe Leu  
 1

<210> 471  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

<400> 471  
 Ala Pro Arg Arg Gln Ala Gln Glu Trp Leu Gly Arg Thr Gly Asn Thr  
 1 5 10 15

Phe Ala Pro Arg Leu Ala Val Thr Ser Val Lys Ala Asp Arg Arg Glu  
                   20                  25                  30  
 Met Gly Pro Ser Ser Ser Val Val Ala Ala Ser Pro Ser Leu Gln Asp  
                   35                  40                  45  
 Arg Val Ile Ile Thr Ile Asn Asn Pro Ser Arg Val Lys Lys Lys Lys  
                   50                  55                  60  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
                   65                  70                  75

<210> 472  
 <211> 245  
 <212> PRT  
 <213> Homo sapiens

<400> 472  
 Ala Trp Arg Arg Arg Arg Ser Gly Thr Ser Gly Lys Ala Thr Trp Trp  
   1                  5                  10                  15  
 Cys Ser Gly Leu Arg Arg Ala Ser Pro Thr Pro Ser Arg Arg Val Gln  
                   20                  25                  30  
 Ser Trp Ala Thr Ala Val Met Trp Lys Pro Ser Pro Ser Ser Ser Pro  
                   35                  40                  45  
 Ala Ser Trp Ser Cys Thr Ala Leu Arg Ala Pro Gln Ser Cys Leu Arg  
                   50                  55                  60  
 Ala Ala Thr Val Arg Pro Val Thr Leu Gln Ala Arg Ala Asp Ser Pro  
                   65                  70                  75                  80  
 Thr Val Pro Glu Pro Val His Arg Pro Gln Asp Pro Trp His Ile Pro  
                   85                  90                  95  
 Gly Val Pro Glu Pro Val His Arg Pro Gln Asp Pro Trp His Ile Pro  
                   100                  105                  110  
 Gly Val Pro Glu Pro Val His Arg Pro Gln Asp Pro Trp His Ile Pro  
                   115                  120                  125  
 Gly Val Pro Glu Pro Val His Arg Pro Gln Asp Pro Trp Pro Trp Leu  
                   130                  135                  140  
 Gln Leu Val Pro Pro Ala Glu Leu Ala Tyr Cys Leu Leu Met Leu Leu  
                   145                  150                  155                  160  
 Leu Ala His Cys Met Lys Gln Gln Ala Arg Pro Gly His Pro Asp Phe  
                   165                  170                  175  
 Leu His Arg Glu Ala Trp Ala Cys Leu Ser Ala Ala Gly Gly Leu Ala  
                   180                  185                  190  
 Ser Pro Gly Leu Leu Leu Trp Ala Thr Ala Arg Pro Arg Ala Ser Gly  
                   195                  200                  205  
 Glu Ala Gly Pro Gly Arg Ala Leu Val Gly Ala Asp Ala Ala Cys Cys

210

215

220

Pro Arg His Ser Val Leu Ser Leu Val Asp Ile Pro Ser Gly Gln Val  
 225 230 235 240

Leu Pro Gln Gly Gln  
 245

&lt;210&gt; 473

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 473

Met Ala Ala Arg Gly Arg Ser Gly Val Gly Pro Pro Gly Phe Leu Arg  
 1 5 10 15

Ala Leu Ala Leu Leu Gln Leu Ser Cys Gly Phe Tyr Trp Ala Cys Ser  
 20 25 30

Arg Gly Trp Met Val Arg Gly Thr Pro His Pro  
 35 40

&lt;210&gt; 474

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 474

Met Ala Ala Arg Gly Arg Ser Gly Val Gly Pro Pro Gly Phe Leu Arg  
 1 5 10 15

Ala Leu Ala Leu Leu Gln Leu Ser Cys Gly Phe Tyr Trp Ala Cys Ser  
 20 25 30

Arg Gly Trp Met Val Arg Gly Thr Pro His Pro  
 35 40

&lt;210&gt; 475

&lt;211&gt; 43

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 475

Met Phe Asn Leu Ser Phe Phe Thr Leu Tyr Gly Leu Cys Met Leu Lys  
 1 5 10 15

Leu His Ser Ala Ser Ser Trp Phe Thr Leu Leu Leu Ile Ser Leu  
 20 25 30

Phe Leu Ser Val Val Tyr Cys Gln Ser Thr Asn  
 35 40

<210> 476  
 <211> 2  
 <212> PRT  
 <213> Homo sapiens

<400> 476  
 Leu His  
 1

<210> 477  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens.

<400> 477  
 Met Phe Asn Leu Ser Phe Phe Thr Leu Tyr Gly Leu Cys Met Leu Lys  
 1 5 10 15  
 Leu His Ser Ala Ser Ser Trp Phe Thr Leu Leu Leu Leu Ile Ser Leu  
 20 25 30  
 Phe Leu Ser Val Val Tyr Cys Gln Ser Thr Asn  
 35 40

<210> 478  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 478  
 Met Ser Leu Leu Leu Pro Pro Leu Ala Leu Leu Leu Leu Ala Ala  
 1 5 10 15  
 Leu Val Ala Pro Ala Thr Ala Ala Thr Ala Tyr Arg Pro Asp Trp Asn  
 20 25 30  
 Arg Leu Ser Gly Leu Thr Arg Ala Arg Val Glu Thr Cys Gly Gly  
 35 40 45

<210> 479  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<400> 479  
 Met Ser Leu Leu Leu Pro Pro Leu Ala Leu Leu Leu Leu Ala Ala  
 1 5 10 15  
 Leu Val Ala Pro Ala Thr Ala Ala Thr Ala Tyr Arg Pro Asp Trp Asn  
 20 25 30  
 Arg Leu Ser Gly Leu Thr Arg Ala Arg Val Glu Thr Cys Gly Gly  
 35 40 45



<210> 480  
 <211> 365  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (313)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (316)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (333)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (335)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (338)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (339)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (352)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (355)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 480  
 Met Leu Ser Gly Val Trp Phe Leu Ser Val Leu Thr Val Ala Gly Ile  
 1 5 10 15

Leu Gln Thr Glu Ser Arg Lys Thr Ala Lys Asp Ile Cys Lys Ile Arg  
 20 25 30

Cys Leu Cys Glu Glu Lys Glu Asn Val Leu Asn Ile Asn Cys Glu Asn  
 35 40 45

Lys Gly Phe Thr Thr Val Ser Leu Leu Gln Pro Pro Gln Tyr Arg Ile  
 50 55 60

Tyr Gln Leu Phe Leu Asn Gly Asn Leu Leu Thr Arg Leu Tyr Pro Asn  
 65 70 75 80  
 Glu Phe Val Asn Tyr Ser Asn Ala Val Thr Leu His Leu Gly Asn Asn  
 85 90 95  
 Gly Leu Gln Glu Ile Arg Thr Gly Ala Phe Ser Gly Leu Lys Thr Leu  
 100 105 110  
 Lys Arg Leu His Leu Asn Asn Asn Lys Leu Glu Ile Leu Arg Glu Asp  
 115 120 125  
 Thr Phe Leu Gly Leu Glu Ser Leu Glu Tyr Leu Gln Ala Asp Tyr Asn  
 130 135 140  
 Tyr Ile Ser Ala Ile Glu Ala Gly Ala Phe Ser Lys Leu Asn Lys Leu  
 145 150 155 160  
 Lys Val Leu Ile Leu Asn Asp Asn Leu Leu Leu Ser Leu Pro Ser Asn  
 165 170 175  
 Val Phe Arg Phe Val Leu Leu Thr His Leu Asp Leu Arg Gly Asn Arg  
 180 185 190  
 Leu Lys Val Met Pro Phe Ala Gly Val Leu Glu His Ile Gly Gly Ile  
 195 200 205  
 Met Glu Ile Gln Leu Glu Glu Asn Pro Trp Asn Cys Thr Cys Asp Leu  
 210 215 220  
 Leu Pro Leu Lys Ala Trp Leu Asp Thr Ile Thr Val Phe Val Gly Glu  
 225 230 235 240  
 Ile Val Cys Glu Thr Pro Phe Arg Leu His Gly Lys Asp Val Thr Gln  
 245 250 255  
 Leu Thr Arg Gln Asp Leu Cys Pro Arg Lys Ser Ala Ser Asp Ser Ser  
 260 265 270  
 Gln Arg Gly Ser His Ala Asp Thr His Val Gln Arg Leu Ser Pro Thr  
 275 280 285  
 Met Asn Pro Ala Leu Asn Pro Thr Arg Ala Pro Lys Ala Ser Arg Pro  
 290 295 300  
 Pro Lys Met Arg Asn Arg Pro Thr Xaa Arg Val Xaa Val Ser Lys Asp  
 305 310 315 320  
 Arg Gln Ser Phe Gly Pro Ile Met Val Tyr Gln Thr Xaa Val Xaa Cys  
 325 330 335  
 Ala Xaa Xaa Leu Ser Gln Gln Leu Cys Leu His Leu Ser Glu Leu Xaa  
 340 345 350  
 Gln Trp Xaa Glu Cys Lys Leu Pro Arg Lys Glu Val His  
 355 360 365

<210> 481  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 481  
 Gly Tyr Trp Val Ser Phe Leu Leu His Val Asp Gly Val Leu Ala His  
     1                    5                    10                    15  
 Leu Thr Thr Gly Gly Gly Ile  
                     20

<210> 482  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

<400> 482  
 Met Leu Ser Gly Val Trp Phe Leu Ser Val Leu Thr Val Ala Gly Ile  
     1                    5                    10                    15  
 Leu Gln Thr Glu Ser Arg Lys Thr Ala Lys Asp Ile Cys Lys Ile Arg  
                     20                    25                    30  
 Cys Leu Cys Glu Glu Lys Glu Asn Val Leu Asn Ile Asn Cys Glu Asn  
                     35                    40                    45  
 Lys Gly Phe Thr Thr Val Ser Leu Leu Gln Pro Pro Gln Tyr Arg Ile  
     50                    55                    60  
 Tyr Gln Leu Phe Leu Asn Gly Asn Leu Leu Thr Arg Leu Tyr Pro Asn  
     65                    70                    75                    80  
 Glu Phe Val Asn Tyr Ser Asn Ala Val Thr Leu His Leu Gly Asn Asn  
                     85                    90                    95  
 Gly Leu Gln Glu Ile Arg Thr Gly Ala Phe Ser Gly Leu Lys Thr Leu  
                     100                    105                    110  
 Lys Arg Leu His Leu Asn Asn Asn Lys Leu Glu Ile Leu Arg Glu Asp  
     115                    120                    125  
 Thr Phe Leu Gly Leu Glu Ser Leu Glu Tyr Leu Gln Ala Asp Tyr Asn  
     130                    135                    140  
 Tyr Ile Ser Ala Ile Glu Ala Gly Ala Phe Ser Lys Leu Asn Lys Leu  
     145                    150                    155                    160  
 Lys Val Leu Ile Leu Asn Asp Asn Leu Leu Leu Ser Leu Pro Ser Asn  
                     165                    170                    175  
 Val Phe Arg Phe Val Leu Leu Thr His Leu Asp Leu Arg Gly Asn  
                     180                    185                    190

<210> 483  
 <211> 845

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (477)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 483

Met Leu Ser Gly Val Trp Phe Leu Ser Val Leu Thr Val Ala Gly Ile  
 1 5 10 15

Leu Gln Thr Glu Ser Arg Lys Thr Ala Lys Asp Ile Cys Lys Ile Arg  
 20 25 30

Cys Leu Cys Glu Glu Lys Glu Asn Val Leu Asn Ile Asn Cys Glu Asn  
 35 40 45

Lys Gly Phe Thr Thr Val Ser Leu Leu Gln Pro Pro Gln Tyr Arg Ile  
 50 55 60

Tyr Gln Leu Phe Leu Asn Gly Asn Leu Leu Thr Arg Leu Tyr Pro Asn  
 65 70 75 80

Glu Phe Val Asn Tyr Ser Asn Ala Val Thr Leu His Leu Gly Asn Asn  
 85 90 95

Gly Leu Gln Glu Ile Arg Thr Gly Ala Phe Ser Gly Leu Lys Thr Leu  
 100 105 110

Lys Arg Leu His Leu Asn Asn Asn Lys Leu Glu Ile Leu Arg Glu Asp  
 115 120 125

Thr Phe Leu Gly Leu Glu Ser Leu Glu Tyr Leu Gln Ala Asp Tyr Asn  
 130 135 140

Tyr Ile Ser Ala Ile Glu Ala Gly Ala Phe Ser Lys Leu Asn Lys Leu  
 145 150 155 160

Lys Val Leu Ile Leu Asn Asp Asn Leu Leu Leu Ser Leu Pro Ser Asn  
 165 170 175

Val Phe Arg Phe Val Leu Leu Thr His Leu Asp Leu Arg Gly Asn Arg  
 180 185 190

Leu Lys Val Met Pro Phe Ala Gly Val Leu Glu His Ile Gly Gly Ile  
 195 200 205

Met Glu Ile Gln Leu Glu Glu Asn Pro Trp Asn Cys Thr Cys Asp Leu  
 210 215 220

Leu Pro Leu Lys Ala Trp Leu Asp Thr Ile Thr Val Phe Val Gly Glu  
 225 230 235 240

Ile Val Cys Glu Thr Pro Phe Arg Leu His Gly Lys Asp Val Thr Gln  
 245 250 255

Leu Thr Arg Gln Asp Leu Cys Pro Arg Lys Ser Ala Ser Asp Ser Ser  
 260 265 270

Gln Arg Gly Ser His Ala Asp Thr His Val Gln Arg Leu Ser Pro Thr  
 275 280 285  
 Met Asn Pro Ala Leu Asn Pro Thr Arg Ala Pro Lys Ala Ser Arg Pro  
 290 295 300  
 Pro Lys Met Arg Asn Arg Pro Thr Pro Arg Val Thr Val Ser Lys Asp  
 305 310 315 320  
 Arg Gln Ser Phe Gly Pro Ile Met Val Tyr Gln Thr Lys Ser Pro Val  
 325 330 335  
 Pro Leu Thr Cys Pro Ser Ser Cys Val Cys Thr Ser Gln Ser Ser Asp  
 340 345 350  
 Asn Gly Leu Asn Val Asn Cys Gln Glu Arg Lys Phe Thr Asn Ile Ser  
 355 360 365  
 Asp Leu Gln Pro Lys Pro Thr Ser Pro Lys Lys Leu Tyr Leu Thr Gly  
 370 375 380  
 Asn Tyr Leu Gln Thr Val Tyr Lys Asn Asp Leu Leu Glu Tyr Ser Ser  
 385 390 395 400  
 Leu Asp Leu Leu His Leu Gly Asn Asn Arg Ile Ala Val Ile Gln Glu  
 405 410 415  
 Gly Ala Phe Thr Asn Leu Thr Ser Leu Arg Arg Leu Tyr Leu Asn Gly  
 420 425 430  
 Asn Tyr Leu Glu Val Leu Tyr Pro Ser Met Phe Asp Gly Leu Gln Ser  
 435 440 445  
 Leu Gln Tyr Leu Tyr Leu Glu Tyr Asn Val Ile Lys Glu Ile Lys Pro  
 450 455 460  
 Leu Thr Phe Asp Ala Leu Ile Asn Leu Gln Leu Leu Xaa Leu Asn Asn  
 465 470 475 480  
 Asn Leu Leu Arg Ser Leu Pro Asp Asn Ile Phe Gly Gly Thr Ala Leu  
 485 490 495  
 Thr Arg Leu Asn Leu Arg Asn Asn His Phe Ser His Leu Pro Val Lys  
 500 505 510  
 Gly Val Leu Asp Gln Leu Pro Ala Phe Ile Gln Ile Asp Leu Gln Glu  
 515 520 525  
 Asn Pro Trp Asp Cys Thr Cys Asp Ile Met Gly Leu Lys Asp Trp Thr  
 530 535 540  
 Glu His Ala Asn Ser Pro Val Ile Ile Asn Glu Val Thr Cys Glu Ser  
 545 550 555 560  
 Pro Ala Lys His Ala Gly Glu Ile Leu Lys Phe Leu Gly Arg Glu Ala  
 565 570 575  
 Ile Cys Pro Asp Ser Pro Asn Leu Ser Asp Gly Thr Val Leu Ser Met  
 580 585 590

Asn His Asn Thr Asp Thr Pro Arg Ser Leu Ser Val Ser Pro Ser Ser  
 595 600 605  
 Tyr Pro Glu Leu His Thr Glu Val Pro Leu Ser Val Leu Ile Leu Gly  
 610 615 620  
 Leu Leu Val Val Phe Ile Leu Ser Val Cys Phe Gly Ala Gly Leu Phe  
 625 630 635 640  
 Val Phe Val Leu Lys Arg Arg Lys Gly Val Pro Ser Val Pro Arg Asn  
 645 650 655  
 Thr Asn Asn Leu Asp Val Ser Ser Phe Gln Leu Gln Tyr Gly Ser Tyr  
 660 665 670  
 Asn Thr Glu Thr His Asp Lys Thr Asp Gly His Val Tyr Asn Tyr Ile  
 675 680 685  
 Pro Pro Pro Val Gly Gln Met Cys Gln Asn Pro Ile Tyr Met Gln Lys  
 690 695 700  
 Glu Gly Asp Pro Val Ala Tyr Tyr Arg Asn Leu Gln Glu Phe Ser Tyr  
 705 710 715 720  
 Ser Asn Leu Glu Glu Lys Lys Glu Glu Pro Ala Thr Pro Ala Tyr Thr  
 725 730 735  
 Ile Ser Ala Thr Glu Leu Leu Glu Lys Gln Ala Thr Pro Arg Glu Pro  
 740 745 750  
 Glu Leu Leu Tyr Gln Asn Ile Ala Glu Arg Val Lys Glu Leu Pro Ser  
 755 760 765  
 Ala Gly Leu Val His Tyr Asn Phe Cys Thr Leu Pro Lys Arg Gln Phe  
 770 775 780  
 Ala Pro Ser Tyr Glu Ser Arg Arg Gln Asn Gln Asp Arg Ile Asn Lys  
 785 790 795 800  
 Thr Val Leu Tyr Gly Thr Pro Arg Lys Cys Phe Val Gly Gln Ser Lys  
 805 810 815  
 Pro Asn His Pro Leu Leu Gln Ala Lys Pro Gln Ser Glu Pro Asp Tyr  
 820 825 830  
 Leu Glu Val Leu Glu Lys Gln Thr Ala Ile Ser Gln Leu  
 835 840 845

&lt;210&gt; 484

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (125)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids.

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 484

Phe Cys Leu Leu His Val Pro Ala Ser Cys Tyr Cys Ser Phe Ser Asn  
 1 5 10 15

Gly Ile Thr Ser Pro Cys His Ala Leu Gly Ser Pro Ser Leu Ser Ile  
 20 25 30

Ser Val Leu Leu Ser Trp Leu Asn Pro Ser Thr Ile Leu Asn Thr Gly  
 35 40 45

Ser Ser Cys Pro Ile Pro Arg Leu Thr Leu Ser Asp Leu Pro Ile Ser  
 50 55 60

Leu Ala Phe His Ala Pro Leu Pro Pro Pro Gly Phe Asn Trp Val  
 65 70 75 80

Arg Ala Val Phe Leu Pro Leu Cys Ser Ala Ser Ala Leu Arg Thr Pro  
 85 90 95

Arg Gly Leu Gly Gly Lys Val Leu Thr Ile Phe Thr Leu Cys Leu Pro  
 100 105 110

Leu His His Leu Phe Ile Thr Ser Gln Pro Leu Leu Xaa Gln Val Phe  
 115 120 125

Thr His Xaa Leu Phe Leu Gln Val Phe Asp Trp Arg Glu  
 130 135 140

&lt;210&gt; 485

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 485

Ser His Ile Val Thr Cys Leu Gly  
 1 5

&lt;210&gt; 486

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 486

Met Gly Leu Lys Asn Ser Ser Leu Ile Thr Cys Phe Leu Leu Ala Phe  
 1 5 10 15

Val Val Phe Val Leu Phe Cys Leu Phe Cys Phe Val Phe Leu Cys Tyr  
 20 25 30

Phe Ile Gly Lys Val Ser Gly Met Cys Ser  
 35 40

<210> 487  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 487  
 Met Gly Leu Lys Asn Ser Ser Leu Ile Thr Cys Phe Leu Leu Ala Phe  
           1                  5                  10                  15  
 Val Val Phe Val Leu Phe Cys Leu Phe Cys Phe Val Phe Leu Cys Tyr  
                   20                  25                  30  
 Phe Ile Gly Lys Val Ser Gly Met Cys Ser  
                   35                  40

<210> 488  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 488  
 Met Arg Arg Met Ala Ser Ala Leu Leu Leu Asp Gln Leu Thr Lys Ala  
           1                  5                  10                  15  
 Leu Leu Ser Gly His Gln Asn Trp Lys Ala Phe  
                   20                  25

<210> 489  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (33)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 489  
 Xaa Arg Cys Phe Thr Phe Xaa Phe Thr Asp Ile Val Ile Met Pro Lys  
           1                  5                  10                  15  
 Arg Lys Phe Pro Glu Asn Thr Glu Gly Lys Asp Gly Ser Lys Val Thr  
                   20                  25                  30



Xaa Gln Glu Pro Thr Arg Arg Ser Ala Arg Leu Ser Ala Lys Pro Ala  
           35                          40                          45  
 Pro Pro Lys Pro Glu Pro Lys Pro Arg Lys Thr Ser Ala Lys Lys Glu  
           50                          55                          60  
 Pro Gly Ala Lys Ile Ser Arg Gly Ala Lys Gly Lys Lys Glu Glu Lys  
           65                          70                          75                          80  
 Gln Glu Ala Gly Lys Glu Gly Thr Ala Pro Ser Glu Asn Gly Glu Thr  
                           85                          90                          95  
 Lys Ala Glu Glu Ile His Ile Ser Arg Ser Thr Val Asn Val Ser Thr  
                           100                          105                          110  
 Ser Arg Gly Thr Pro Pro Ser Thr Leu Ser Val Lys Gly Gln Ile Glu  
           115                          120                          125  
 Thr Val Arg Val Lys Gly Thr Glu Asn  
           130                          135

&lt;210&gt; 490

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 490

Asn Lys Pro Asp Thr Gly Arg Lys Ile Leu His Asp Leu Ile Cys Gly  
           1                          5                          10                          15  
 Ile Leu Lys Lys Lys Lys Lys Lys Ser Gln Ile Tyr Arg Val Asn Lys  
                           20                          25                          30  
 Arg Val Gly Tyr Gln Xaa Gln Val Gly Gly Glu Trp Glu Met  
           35                          40                          45

&lt;210&gt; 491

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 491

Met Gln Pro Pro Phe Val Leu Thr Thr Thr Thr Met Ile Ser Leu Phe  
           1                          5                          10                          15  
 Leu Ala Leu Ile Ser Thr Lys Lys Val His Leu Thr Ile Pro Gln Pro  
                           20                          25                          30  
 Phe Thr Ser His Ser Arg Leu Ser Phe Asp Val Phe Lys Arg Lys Ala  
           35                          40                          45

Arg Ala  
50

<210> 492  
<211> 228  
<212> PRT  
<213> Homo sapiens

<400> 492

Thr Gln Asp His Gln Lys Leu Cys Tyr Ser Ala Leu Ile Leu Ala Met  
1 5 10 15

Val Phe Ser Met Gly Glu Ala Val Pro Tyr Ala His Tyr Glu His Leu  
20 25 30

Gly Thr Pro Phe Ala Gln Phe Leu Leu Asn Ile Val Glu Asp Gly Leu  
35 40 45

Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu  
50 55 60

Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met  
65 70 75 80

Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu  
85 90 95

Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His  
100 105 110

Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe  
115 120 125

Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala  
130 135 140

Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp  
145 150 155 160

Lys Leu Arg Met Glu Tyr Leu Ser Leu Met His Ala Ile Val Arg Thr  
165 170 175

Thr Pro Tyr Leu Gln His Arg His Arg Leu Pro Asp Leu Gln Ala Ile  
180 185 190

Leu Arg Arg Ile Leu Asn Glu Glu Glu Thr Ser Pro Gln Cys Gln Met  
195 200 205

Asp Arg Met Ile Val Arg Glu Met Cys Lys Glu Phe Leu Val Leu Gly  
210 215 220

Glu Ala Pro Ser  
225

<210> 493

<211> 13  
 <212> PRT  
 <213> Homo sapiens

<400> 493  
 Pro Phe His Phe Ser Thr Pro Ser Ile Thr Gly Leu Phe  
 1 5 10

<210> 494  
 <211> 2  
 <212> PRT  
 <213> Homo sapiens

<400> 494  
 Phe Leu  
 1

<210> 495  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 495  
 Met Gln Pro Pro Phe Val Leu Thr Thr Thr Thr Met Ile Ser Leu Phe  
 1 5 10 15

Leu Ala Leu Ile Ser Thr Lys Lys Val His Leu Thr Ile Pro Gln Pro  
 20 25 30

Phe Thr Ser His Ser Arg Leu Ser Phe Asp Val Phe Lys Arg Lys Ala  
 35 40 45

Arg Ala  
 50

<210> 496  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 496  
 Met Phe Ile Phe Ile Leu Met Ile His Leu Ile Tyr Met Trp Ile Gln  
 1 5 10 15

Gly Thr Lys Phe Met Tyr Lys Ser Ser His Leu Met Asn Val Asp Thr  
 20 25 30

Phe Leu Glu Asn Ile Tyr Gln Cys Glu Asn Phe Phe Asn Thr Leu Thr  
 35 40 45

Thr Lys Ile Lys Tyr Ser Leu Ile Ser Leu Phe Asn Lys His Gln Asn  
 50 55 60

Asn Val Ser Val Phe Ile Leu

65

70

<210> 497  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 497  
 Leu Phe Ile Leu Val Leu His Asn Glu Asp Asn Leu Tyr Gly  
 1 5 10

<210> 498  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 498  
 Met Phe Ile Phe Ile Leu Met Ile His Leu Ile Tyr Met Trp Ile Gln  
 1 5 10 15

Gly Thr Lys Phe Met Tyr Lys Ser Ser His Leu Met Asn Val Asp Thr  
 20 25 30

Phe Leu Glu Asn Ile Tyr Gln Cys Glu Asn Phe Phe Asn Thr Leu Thr  
 35 40 45

Thr Lys Ile Lys Tyr Ser Leu Ile Ser Leu Phe Asn Lys His Gln Asn  
 50 55 60

Asn Val Ser Val Phe Ile Leu  
 65 70

<210> 499  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (82)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (88)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (96)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (111)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 499

Gly	Arg	Cys	Leu	Asp	Cys	Phe	Asn	Pro	Phe	Leu	Leu	Ser	Cys	Pro	Arg
1				5					10					15	

Ile	Gly	Leu	Val	Glu	Gln	Gly	Gly	Val	Lys	Ile	Glu	Pro	Leu	Pro	Lys
		20						25					30		

Glu	Val	Lys	Val	Tyr	Leu	Leu	Thr	Thr	Ser	Ser	Ala	Pro	Tyr	Cys	Met
	35						40					45			

His	His	Ser	Leu	Val	Glu	Phe	His	Leu	Lys	Glu	Leu	Arg	Asn	Lys	Asp
	50					55					60				

Thr	Asn	Ile	Glu	Val	Thr	Phe	Leu	Ser	Ser	Asn	Ile	Thr	Ser	Ser	Ser
65					70					75					80

Lys	Xaa	Thr	Ile	Pro	Lys	Gln	Xaa	Arg	Tyr	Gly	Glu	Arg	Asn	His	Xaa
				85					90					95	

Pro	Met	Pro	Thr	Pro	Gln	Cys	Gln	Ile	Xaa	Gln	Val	Lys	Phe	Xaa	Phe
		100						105					110		

Gln	Ser	Ser	Asn	Arg	Val	Trp	Lys	Lys	Asp	Arg	Thr	Thr	Ile	Ile	Gly
	115						120					125			

Lys	Phe	Cys	Thr	Ala	Leu	Leu	Pro	Val	Asn	Asp	Arg	Glu	Lys	Met	Val
	130					135					140				

Cys	Leu	Pro	Glu	Pro	Val	Asn	Leu	Gln	Ala	Ser	Val	Thr	Val	Ser	Cys
145					150					155					160

Asp	Leu	Lys	Ile	Ala	Cys	Val
						165

&lt;210&gt; 500

&lt;211&gt; 1

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 500

Met

1

&lt;210&gt; 501

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 501

Thr Thr Glu Ile Cys Gly Thr Leu Ile Leu Arg Glu Met Ile  
 1 5 10

&lt;210&gt; 502

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 502

Met Ser Leu Phe Leu Thr Leu Ala Leu Cys Ser Val Leu Leu Val His  
 1 5 10 15

Leu Asn Val Leu Ala Arg Asn Cys Phe Tyr Asp Ser Gly Phe Val Val  
 20 25 30

His Pro Trp Ile Trp Leu Gly His Ser Leu Pro Tyr Phe Tyr Phe Ser  
 35 40 45

Pro Leu Ser Gln Arg Leu Phe Ser Tyr Leu Trp Thr Phe Ile Phe Pro  
 50 55 60

Cys Arg Leu  
 65

&lt;210&gt; 503

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 503

Met Ser Leu Phe Leu Thr Leu Ala Leu Cys Ser Val Leu Leu Val His  
 1 5 10 15

Leu Asn Val Leu Ala Arg Asn Cys Phe Tyr Asp Ser Gly Phe Val Val  
 20 25 30

His Pro Trp Ile Trp Leu Gly His Ser Leu Pro Tyr Phe Tyr Phe Ser  
 35 40 45

Pro Leu Ser Gln Arg Leu Phe Ser Tyr Leu Trp Thr Phe Ile Phe Pro  
 50 55 60

Cys Arg Leu  
 65

&lt;210&gt; 504

&lt;211&gt; 5

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 504

Leu Tyr Leu Phe Met  
 1 5

&lt;210&gt; 505

&lt;211&gt; 65

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 505

Ile Ile Tyr Leu Leu Phe Val Thr Lys Trp Glu Ile Arg Lys Lys Val  
 1 5 10 15

Arg Lys Tyr Leu Arg Gly Lys Ser Phe Leu Leu Ser His Val Phe Ser  
 20 25 30

Thr Cys Leu Pro Trp Tyr Ile Ile Asn Thr Asp Ile Leu His Thr Pro  
 35 40 45

Cys Lys Ile Leu Leu Lys Leu Ser Ser Thr Trp His Val Glu Tyr Val  
 50 55 60

Pro  
 65

&lt;210&gt; 506

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 506

Met Val Val Ala Ala Val Tyr Ile Leu Tyr Leu Leu Phe Leu Ile Val  
 1 5 10 15

Arg Ala Cys Ser Glu Leu Arg His Met Pro Tyr Val Asp Leu Arg Leu  
 20 25 30

Lys Phe Leu Thr Ala Leu Thr Phe Val Val Leu Val Ile Ser Ile Ala  
 35 40 45

Ile Leu Tyr Leu Arg Phe Gly Ala Gln Val Leu Gln Asp Asn Phe Val  
 50 55 60

Ala Glu Leu Ser Thr His Tyr Gln Asn Ser Ala Glu Phe Leu Ser Phe  
 65 70 75 80

Tyr Gly Leu Leu Asn Phe Tyr Leu Tyr Thr Leu Ala Phe Val Tyr Ser  
 85 90 95

Pro Ser Lys Asn Ala Leu Tyr Glu Ser Gln Leu Lys Asp Asn Pro Ala  
 100 105 110

Phe Ser Met Leu Asn Asp Ser Asp Asp Asp Val Ile Tyr Gly Ser Asp  
 115 120 125

Tyr Glu Glu Met Pro Leu Gln Asn Gly Gln Ala Ile Arg Ala Lys Tyr  
 130 135 140

Lys Glu Glu Ser Asp Ser Asp

145

150

&lt;210&gt; 507

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 507

Leu Phe Leu Pro Phe Ser Met Val Leu Phe Cys Asp Pro Leu Asn Ser  
 1 5 10 15

Lys Gly Ser Leu Ile Cys Gly Cys Phe Arg Ala Val Leu Pro Arg  
 20 25 30

&lt;210&gt; 508

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (130)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 508

Met Val Val Ala Ala Val Tyr Ile Leu Tyr Leu Leu Phe Leu Ile Val  
 1 5 10 15

Arg Ala Cys Ser Glu Leu Arg His Met Pro Tyr Val Asp Leu Arg Leu  
 20 25 30

Lys Phe Leu Thr Ala Leu Thr Phe Val Val Leu Val Ile Ser Ile Ala  
 35 40 45

Ile Leu Tyr Leu Arg Phe Gly Ala Gln Val Leu Gln Asp Asn Phe Val  
 50 55 60

Ala Glu Leu Ser Thr His Tyr Gln Asn Ser Ala Glu Phe Leu Ser Phe  
 65 70 75 80

Tyr Gly Leu Leu Asn Phe Tyr Leu Tyr Thr Leu Ala Phe Val Tyr Ser  
 85 90 95

Pro Ser Lys Asn Ala Leu Tyr Glu Ser Gln Leu Lys Asp Asn Pro Ala  
 100 105 110

Phe Ser Met Leu Asn Asp Ser Asp Asp Asp Val Ile Tyr Gly Ser Asp  
 115 120 125

Tyr Xaa Glu Met Pro Leu Gln Asn Gly Gln Ala Ile Arg Ala Lys Tyr  
 130 135 140

Lys Glu Glu Ser Asp Ser Asp  
 145 150



<210> 509  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 509  
 Met Arg Cys Gly Glu Ile Ile Leu Ala Ser Val Leu Gly Leu Leu Leu  
 1 5 10 15  
 Thr Leu Pro Pro Thr Ser Cys His Leu Asn Lys Ser Phe Pro Phe Leu  
 20 25 30  
 Cys Leu Pro Trp Ser Gln Ala Leu Ser Leu Asn Pro His Ser Gly Asn  
 35 40 45  
 Glu Ala Gly  
 50

<210> 510  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 510  
 Met Arg Cys Gly Glu Ile Ile Leu Ala Ser Val Leu Gly Leu Leu Leu  
 1 5 10 15  
 Thr Leu Pro Pro Thr Ser Cys His Leu Asn Lys Ser Phe Pro Phe Leu  
 20 25 30  
 Cys Leu Pro Trp Ser Gln Ala Leu Ser Leu Asn Pro His Ser Gly Asn  
 35 40 45  
 Glu Ala Gly  
 50

<210> 511  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 511  
 Leu Arg Asp Pro Glu Asn Cys Val Glu Cys Gly Asp Gly Glu Cys Ala  
 1 5 10 15  
 Cys Gly Cys Thr His Ile Gly Tyr Leu Cys Val Cys Thr Val Tyr Met  
 20 25 30  
 Gln Gly Cys Val Tyr Val Cys Met Cys Ile Arg Val Trp Val Trp Val  
 35 40 45  
 Trp Gly Val Phe Arg Glu Cys Ala Tyr Thr His Gly Cys Leu Gly Met  
 50 55 60  
 Cys Thr Cys Leu Cys Val Arg Gly Val Cys Val Cys Val Cys Met Val

```

<210> 512
<211> 90
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 512
Met Tyr Arg Gly Xaa Arg Val Lys His Pro Phe Val Phe Arg Lys Leu
  1              5              10              15
Gln Val Thr Gln Asp Asp Trp Ile Val Arg Tyr Arg Gly Leu Lys Gly
      20              25              30
Asn Ala Glu Val Val His Arg Glu Gln Val Asn Leu Pro Arg Thr Met
      35              40              45
Gly Leu Arg His Ala Leu Leu Thr Arg Arg Ala Thr Arg Ser Met Gly
      50              55              60
Ala Ile Cys Val Ala Gly Cys Gly Ile Pro Ala Gln Val Ser Leu Ser
      65              70              75              80
Lys Arg Gly Ile Leu Leu Val Pro Lys Thr
      85              90

```

```

<210> 513
<211> 45
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 513
Leu Gly Ser Ala Arg His Arg Pro His Ala Leu Val Leu Gly Met Ser
 1             5             10             15
Ser Pro Phe Leu Lys Lys Thr Cys Ser Ala Val Thr Thr Thr Lys Lys
          20             25             30
His Gly Glu Asp Trp Ala Xaa Asp Met Met Phe Ser Ser
      35             40             45

```

&lt;210&gt; 514

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 514

Leu	Thr	Ser	Phe	Gly	Leu	Arg	Ala	Ile	Leu	Ile	Phe	Gln	Met	Xaa	Ser
1				5					10					15	

Asp	Val	Asn	Xaa	Ile	Gly	Lys	His	Gln	Arg	Asn	Gly	Cys	Lys	Val	Ser
		20						25					30		

Gly	Thr	Glu
		35

&lt;210&gt; 515

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 515

Met	Gly	Gln	Ala	Ser	Ala	Leu	Ala	Ser	Leu	Leu	Leu	Arg	Ala	Leu	Ala
1				5					10					15	

Leu	Val	Leu	Gly	Ala	Arg	Ile	Gly	Lys	Gly	Gly	Gln	Arg	Gly	Met	Ile
			20					25					30		

Ile	Ile	Ser	Ile	Ala	Ala	Leu	Pro	Ser	Thr	Gly	Cys	Gln	Glu	Leu	Tyr
		35					40					45			

Ile	His
	50

&lt;210&gt; 516

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 516

Ser	Pro	Ile	Ile	Phe	Pro	Leu	Asn	His	Tyr	Thr	Arg	Ile	Ser	His	Leu
1				5					10				15		

Cys	Pro	Pro	Asp	Ile	Leu	Gly	Trp	Ile	Ile	Leu	Gly	Leu	Gly	Gly	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

20

25

30

Pro Val Arg Cys Arg Thr Phe Ser Ser Ile Leu Gly Leu Phe Leu Leu  
           35                          40                          45

Asp Ala Ser Ser Thr Pro Phe Leu Ser Tyr Asp Arg Leu Lys Cys Pro  
           50                          55                          60

Pro Gly Lys Arg Trp Trp Gln Asn Tyr Pro Trp  
           65                          70                          75

&lt;210&gt; 517

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 517

Met Asn Glu Ser Phe Tyr Cys Ser Ala Phe Leu Pro Ala Phe Ile Val  
           1                          5                          10                          15

Cys Trp Ile Leu Ala Ile Leu Ile Val Leu Thr Cys Gly Phe Arg Met  
                           20                          25                          30

Thr Asp Tyr Ile Glu His Leu His Glu Ile Leu Cys His Leu Tyr Ile  
           35                          40                          45

Phe Phe Gly Lys Ala Ser Ile Ser Gly Leu Ser Thr  
           50                          55                          60

&lt;210&gt; 518

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 518

Met Asn Glu Ser Phe Tyr Cys Ser Ala Phe Leu Pro Ala Phe Ile Val  
           1                          5                          10                          15

Cys Trp Ile Leu Ala Ile Leu Ile Val Leu Thr Cys Gly Phe Arg Met  
                           20                          25                          30

Thr Asp Tyr Ile Glu His Leu His Glu Ile Leu Cys His Leu Tyr Ile  
           35                          40                          45

Phe Phe Gly Lys Ala Ser Ile Ser Gly Leu Ser Thr  
           50                          55                          60

&lt;210&gt; 519

&lt;211&gt; 33

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 519

Met Ala Ala Ala Trp Phe Ile Leu Leu Phe Lys His Cys Val His Ser

1	5	10	15
Ser Ser Ile Val Asp Leu Ser Phe Lys Glu Ser Ser Pro Trp Asp Ile			
	20	25	30

Lys

<210> 520  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<400> 520  
 Ala Trp Tyr Val Ile Ile Thr Leu Val Phe Asp Gly  
 1 5 10

<210> 521  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (10)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 521  
 Ala Trp Tyr Val Val Met Ala Leu Thr Xaa Met Xaa Trp Asp Phe  
 1 5 10 15

<210> 522  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 522  
 Leu Leu Leu Asn Phe Cys Ala Val Thr Ala Phe Phe Thr Pro Ile Leu  
 1 5 10 15

Gln

<210> 523  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 523

Met Ala Ala Ala Trp Phe Ile Leu Leu Phe Lys His Cys Val His Ser  
 1 5 10 15

Ser Ser Ile Val Asp Leu Ser Phe Lys Glu Ser Ser Pro Trp Asp Ile  
 20 25 30

Lys

&lt;210&gt; 524

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 524

Leu Trp Arg Tyr Leu Gly Phe Cys Ile Leu Cys His Ile Trp Gln Lys  
 1 5 10 15

Thr Phe Tyr Leu Cys Cys His Glu Lys Gly Cys Thr Met Thr Gln Xaa  
 20 25 30

Pro Pro Gln Ala Ser Gly Pro Ala Glu Ala Lys Ser Glu His Arg Glu  
 35 40 45

Lys Arg Arg Lys Arg Glu Asp Arg Trp Gly Lys Gln Glu Arg Arg Asp  
 50 55 60

Arg Asp Val His Ile Leu Gly Cys Gln Val Trp His Ser Cys Ser Ala  
 65 70 75 80

Arg Val Ala Leu Ser  
 85

&lt;210&gt; 525

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (69)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 525

Met Arg Ala Cys Val Cys Val Tyr Ala Cys Ala His Met Cys Val Cys  
 1 5 10 15

Leu Ala Phe Ser Tyr Leu Ile Gly Cys Ile Lys Cys Arg Pro Lys Asp  
 20 25 30

Glu Gly Glu Asp Tyr Thr Gln Ser Leu Ala Val Thr Ala Ser Val Gln  
                   35                                  40                                  45  
 Lys Ser Cys Val Trp Ala Gln Asn Tyr Ser Leu His Ser Cys Asn Thr  
                   50                                  55                                  60  
 Tyr Ala Ser Arg Xaa Gln Arg Ala Leu Ser Pro Gly Leu His Asn Arg  
                   65                                  70                                  75                                  80  
 Arg Glu Lys Gln Leu Cys Gly Glu Leu Val Thr  
                                   85                                  90

<210> 526  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 526  
 Met Arg Ala Cys Val Cys Val Tyr Ala Cys Ala His Met Cys Val Cys  
           1                                  5                                  10                                  15  
 Leu Ala Phe Ser Tyr Leu Ile Gly Cys Ile Lys Cys Arg Pro Lys Asp  
                   20                                  25                                  30  
 Glu Gly Glu Asp Leu His Pro Lys Pro Gly Cys Asp Ser Phe Cys Pro  
                   35                                  40                                  45  
 Glu Lys Leu Cys Leu Gly Ser Glu Leu Leu Thr Thr Phe Met Gln Tyr  
                   50                                  55                                  60  
 Ile Cys Lys Gln Gly Ala Glu Ser Phe Ile Thr Gly Ala Thr Gln Gln  
                   65                                  70                                  75                                  80  
 Lys Gly Lys Thr Val Met Trp Arg Ala Gly Asp Leu Thr Arg Glu Ala  
                                   85                                  90                                  95

<210> 527  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 527  
 Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val  
           1                                  5                                  10                                  15  
 Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu  
                   20                                  25                                  30  
 Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys  
                   35                                  40                                  45

<210> 528  
 <211> 4  
 <212> PRT  
 <213> Homo sapiens

<400> 528  
 Met Phe Lys Met  
 1

<210> 529  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 529  
 Ile Tyr Gln His Phe Ser Leu Trp Leu Gly  
 1 5 10

<210> 530  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 530  
 Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val  
 1 5 10 15

Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu  
 20 25 30

Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys  
 35 40 45

<210> 531  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 531  
 His Ser Asp Leu Gly Leu Ser Cys Pro Glu Leu Leu Leu Pro Cys Ile  
 1 5 10 15

Ile Leu Ile Thr Phe Ser  
 20



<210> 532  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 532

```

Met His His His Ala His Leu Ser Cys Tyr Asp Phe Leu Met Leu Leu
  1                      5              10              15

Phe Leu Leu Leu His Pro Leu Leu Pro Pro Pro Pro Thr Ala Ser Leu
                20              25              30

Pro Pro Ser Pro Leu Ile Cys Leu Phe Leu His Thr Val Pro Trp Asn
          35              40              45

Leu Ser Leu Ala Ser Ser His Ser Thr His Ser Leu Arg Ala Leu Pro
          50              55              60

Phe Thr Ser Ala Ile Val Tyr Thr Phe Thr Leu Asp His Ser Ser Glu
          65              70              75              80

Ile Ser Gln Leu Leu His Pro Asp Gly Cys Ser Ala Pro Pro Pro Gly
          85              90              95
  
```

<210> 533  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 533

```

Met His His His Ala His Leu Ser Cys Tyr Asp Phe Leu Met Leu Leu
  1                      5              10              15

Phe Leu Leu Leu His Pro Leu Leu Pro Pro Pro Pro Thr Ala Ser Leu
                20              25              30

Pro Pro Ser Pro Leu Ile Cys Leu Phe Leu His Thr Val Pro Trp Asn
          35              40              45

Leu Ser Leu Ala Ser Ser His Ser Thr His Ser Leu Arg Ala Leu Pro
          50              55              60

Phe Thr Ser Ala Ile Val Tyr Thr Phe Thr Leu Asp His Ser Ser Glu
          65              70              75              80

Ile Ser Gln Leu Leu His Pro Asp Gly Cys Ser Ala Pro Pro Pro Gly
          85              90              95

Cys Pro Thr Gly Thr Leu Asn Pro Thr Ser Pro Lys Leu Asn Ser
          100              105              110
  
```

<210> 534  
 <211> 70

<212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (20)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (60)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 534  
 Gly Arg Lys Arg Asp Gly Gly Trp Arg Lys Gly Gln Lys Ala Gln Val  
           1                          5                          10                          15  
 Glu Val Pro Xaa Leu Leu Ala Arg Arg Ile Leu Trp Pro Leu Gly Gly  
                           20                          25                          30  
 Trp Ser Gly Cys Val Asn Gln Ser Leu Ser Gln Trp Arg Ala Gly Leu  
                           35                          40                          45  
 Val Val Cys Val Phe Ile Thr Gly Pro His Pro Xaa His Thr His Thr  
           50                          55                          60  
 Arg Thr His Cys Gly Val  
       65                          70

<210> 535  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 535  
 Ala Leu Ser Ile Asn Lys Lys Gln Pro Asn Ala Trp Gly Glu Thr Val  
       1                          5                          10                          15  
 Thr Lys Gly Pro Ala Phe Arg Asn Trp Asp Val Lys Gly Val Glu Asn  
           20                          25                          30  
 Gly Trp Gly Val Lys Gly Glu His Val Lys Met Gln Glu Ser Ser Phe  
           35                          40                          45  
 Gly Asp Ile Ala Pro Gly Gly Met Trp Val Ser Met Asn Tyr Met Lys  
           50                          55                          60  
 Gly Cys Pro Ser Cys Ser  
       65                          70

<210> 536  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 536

Met Val Ala Val Cys Trp Cys Leu Ala Leu Thr Ala Lys Val Ser Ala  
 1 5 10 15

Ser Cys Ser Tyr Met Lys Leu Arg Pro Trp Pro Ala Asp Pro Trp Gln  
 20 25 30

Cys Trp Ala Trp Thr Trp Leu Pro Gln Pro Cys Cys Pro Ala Thr Thr  
 35 40 45

Gln Thr Leu Ala Trp Cys Ser  
 50 55

<210> 537

<211> 40

<212> PRT

<213> Homo sapiens

<400> 537

Met Lys Cys Ser Lys Val Leu Thr Gln Leu Ile Leu Phe Thr Pro Leu  
 1 5 10 15

Gly Val Cys Lys Met Ser Leu Phe Tyr Lys His Asn His Asn Ser Asn  
 20 25 30

Lys Pro Gln Val Val Ala Ser Val  
 35 40

<210> 538

<211> 40

<212> PRT

<213> Homo sapiens

<400> 538

Met Lys Cys Ser Lys Val Leu Thr Gln Leu Ile Leu Phe Thr Pro Leu  
 1 5 10 15

Gly Val Cys Lys Met Ser Leu Phe Tyr Lys His Asn His Asn Ser Asn  
 20 25 30

Lys Pro Gln Val Val Ala Ser Val  
 35 40

<210> 539

<211> 195

<212> PRT

<213> Homo sapiens

<400> 539

Arg Gln Ala Val Ile Val Cys Arg Arg Arg Phe Val Met Gly Pro Val  
 1 5 10 15

Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala Val His Glu Ala Trp  
 20 25 30

Ala Gly Met Leu Lys Glu Glu Asp Asp Asp Thr Glu Arg Leu Pro Ser  
           35                                  40                                  45  
 Lys Cys Glu Val Cys Lys Leu Leu Ser Thr Glu Leu Gln Ala Glu Leu  
           50                                  55                                  60  
 Ser Arg Thr Gly Arg Ser Arg Glu Val Leu Glu Leu Gly Gln Val Leu  
           65                                  70                                  75                                  80  
 Asp Thr Gly Lys Arg Lys Arg His Val Pro Tyr Ser Val Ser Glu Thr  
                                   85                                  90                                  95  
 Arg Leu Glu Glu Ala Leu Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr  
                                   100                                  105                                  110  
 Ser Val His Ala Glu Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln  
                                   115                                  120                                  125  
 Ser Gln Thr Met Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys  
           130                                  135                                  140  
 Val Asp Leu Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu  
           145                                  150                                  155                                  160  
 Val Thr Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Arg Gly Gly  
                                   165                                  170                                  175  
 Arg Gly Gly Arg Gly Arg Gly Arg Gln Asp Asp Gln Asp Arg Lys Pro  
                                   180                                  185                                  190  
 Pro Gln Thr  
           195

&lt;210&gt; 540

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 540

Trp Pro Thr Val Ala Ser Pro Arg Thr Ala Ser Arg Pro Xaa Gly Pro  
           1                                  5                                  10                                  15  
 Cys Gln Asn Cys Ala Cys Trp Thr Thr Ser Gly Ala Gly Cys Arg Pro  
                                   20                                  25                                  30  
 Gly Gln Thr Ser Met Pro Pro Trp Thr Thr Gly Pro Arg Cys Cys Thr  
                                   35                                  40                                  45  
 Ser Gln Pro Pro Thr Gly Ser Ala Arg Arg Leu Pro Cys Cys Trp Asn  
           50                                  55                                  60  
 Thr Glu Pro Ala  
           65

<210> 541  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<400> 541  
 Arg Gln Ala Val Ile Val Cys Arg Arg Arg Phe Val Met Gly Pro Val  
     1                    5                    10                    15  
 Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala Val His Glu Ala Trp  
                     20                    25                    30  
 Ala Gly Met Leu Lys Glu Glu Asp Asp Asp Thr Glu Arg Leu Pro Ser  
                     35                    40                    45  
 Lys Cys Glu Val Cys Lys Leu Leu Ser Thr Glu Leu Gln Ala Glu Leu  
                     50                    55                    60  
 Ser Arg Thr Gly Arg Ser Arg Glu Val Leu Glu Leu Gly Gln Val Leu  
                     65                    70                    75                    80  
 Asp Thr Gly Lys Arg Lys Arg His Val Pro Tyr Ser Val Ser Glu Thr  
                     85                    90                    95  
 Arg Leu Glu Glu Ala Leu Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr  
                     100                    105                    110  
 Ser Val His Ala Glu Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln  
                     115                    120                    125  
 Ser Gln Thr Met Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys  
                     130                    135                    140  
 Val Asp Leu Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu  
                     145                    150                    155                    160  
 Val Thr Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Glu Glu  
                     165                    170                    175  
 Glu Glu Glu Glu Glu Glu Gly Gly Asp Lys Met Thr Lys Thr Gly Ser  
                     180                    185                    190  
 His Pro Lys Leu Asp Arg Glu Asp Leu  
                     195                    200

<210> 542  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 542  
 Met Pro Pro Arg Ala Ala Trp Ala Trp Leu Leu Cys Gly Ala Ser  
     1                    5                    10                    15

<210> 543  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 543  
 Met Pro Pro Arg Ala Ala Trp Ala Trp Leu Leu Cys Gly Ala Ser  
           1                  5                  10                  15

<210> 544  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 544  
 Ser Gln Leu Leu Arg Arg Xaa Arg Gln Glu Asp Cys Leu Ser Pro Xaa  
           1                  5                  10                  15

Gly Gly Ser Cys Ser Glu Pro Arg Leu Arg His Cys Thr Pro Ala Trp  
                   20                  25                  30

Val Thr Glu Arg Asp Ser Val Ser Lys Lys Lys Lys Lys Thr Ser Glu  
           35                  40                  45

Val Gly Ala Val Pro Tyr Phe Cys Pro Thr Pro Ile Lys Arg Ile Pro  
           50                  55                  60

Lys Thr Thr Cys Gly Asn Leu Ile Ile Leu Ser Asn Leu Leu Phe Gly  
           65                  70                  75                  80

Gln Asp Trp His Leu Pro Cys Phe Ser Leu Leu Leu Ala Val Lys His  
                   85                  90                  95

Gly Phe Lys Glu Glu Cys Phe Ser Glu Phe Thr Leu Tyr Ile Ser Asp  
           100                  105                  110

Leu Glu Val Ile  
           115

<210> 545  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 545

Met Ile Leu Ile Met Ser Met Asp Ser Val Lys Leu Val Leu Gly Trp  
 1 5 10 15  
 Pro Leu Trp Val Leu Cys Phe Trp Gln Ala Ala Trp Cys Phe Lys Lys  
 20 25 30  
 Ala Phe Glu Trp Gln Gln Thr Leu Pro Leu Tyr Ser Thr Glu Met Val  
 35 40 45  
 Asn Lys Pro  
 50

<210> 546  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 546  
 Met Ile Leu Ile Met Ser Met Asp Ser Val Lys Leu Val Leu Gly Trp  
 1 5 10 15  
 Pro Leu Trp Val Leu Cys Phe Trp Gln Ala Ala Trp Cys Phe Lys Lys  
 20 25 30  
 Ala Phe Glu Trp Gln Gln Thr Leu Pro Leu Tyr Ser Thr Glu Met Val  
 35 40 45  
 Asn Lys Pro  
 50

<210> 547  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 547  
 Met Ala Ala Ala Arg Asn Leu Arg Thr Ala Leu Ile Phe Gly Gly Phe  
 1 5 10 15  
 Ile Ser Met Val Gly Ala Ala Phe Tyr Pro Ile Tyr Phe Arg Pro Leu  
 20 25 30  
 Met Arg Leu Glu Glu Tyr Gln Lys Glu Gln Ala Val Asn Arg Ala Gly  
 35 40 45  
 Ile Val Gln Glu Asp Val Gln Pro Pro Gly Leu Lys Val Trp Ser Asp  
 50 55 60  
 Pro Phe Gly Arg Lys  
 65

<210> 548  
 <211> 69  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 548

Met Ala Ala Ala Arg Asn Leu Arg Thr Ala Leu Ile Phe Gly Gly Phe  
 1 5 10 15  
 Ile Ser Met Val Gly Ala Ala Phe Tyr Pro Ile Tyr Phe Arg Pro Leu  
 20 25 30  
 Met Arg Leu Glu Glu Tyr Gln Lys Glu Gln Ala Val Asn Arg Ala Gly  
 35 40 45  
 Ile Val Gln Glu Asp Val Gln Pro Pro Gly Leu Lys Val Trp Ser Asp  
 50 55 60  
 Pro Phe Gly Arg Lys  
 65

&lt;210&gt; 549

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 549

Ser Gly Trp Gln Val Pro Ser Ser Val Lys His Leu Pro Tyr Asp Asn  
 1 5 10 15  
 Leu Arg Ser His Cys Val Ala Asp Glu Gly Glu Thr Glu Val Glu Gly  
 20 25 30  
 Thr Arg Ala Thr Trp Val Glu His Ser Gly Arg Pro Gly Val Gly Ser  
 35 40 45  
 Gly Arg Pro Pro Gly Thr Ser Leu Thr Thr Leu Pro Leu Leu Leu Thr  
 50 55 60  
 His Leu Ser Leu Thr Cys Pro Leu Gly Gly Asp Phe Ser Lys Arg  
 65 70 75

&lt;210&gt; 550

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 550

Met Pro Val Pro Leu Leu Ala Ser Ala Ala Trp Cys His Leu Cys Ala  
 1 5 10 15  
 Gly Ala Leu Pro Ala Trp Leu Trp Leu Pro Trp Arg Ala Ala Ala  
 20 25 30  
 Gln Trp His Val Cys Ala Ser His Cys Leu Pro Leu His Pro Ala Phe  
 35 40 45  
 Ser Ala Leu Gly Pro His Pro Asp Pro Gly Arg Ala Gly Pro Gly Ala  
 50 55 60



Ala Pro Arg Asp Cys Ala His Pro Glu Leu His Pro Leu Cys Leu Pro  
 65 70 75 80

Arg Trp Ser Leu Gln Leu Leu Pro Arg  
 85

<210> 551  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 551  
 Pro Trp Ala Ser Ser His Leu Gly Pro Arg Pro Tyr Val His Gly Leu  
 1 5 10 15

Ala Pro Ser Gly Pro  
 20

<210> 552  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 552  
 Pro Trp Pro Pro Leu Val  
 1 5

<210> 553  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 553  
 Pro Trp Pro Pro Leu Val  
 1 5

<210> 554  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 554  
 Asp Ile Leu Asn Leu Tyr Cys Thr Phe Tyr Leu Arg Gly Ser Ser Phe  
 1 5 10 15

Thr Cys Val Phe Ile Cys Val Tyr Leu Ser Tyr Ser Lys Arg Ser Arg  
 20 25 30

Glu Ser Pro Cys Pro Arg Ser Ser Ile Leu Arg Ser Glu Asp Val Gln  
 35 40 45

Asn Ser Ser Arg  
50

<210> 555  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 555  
Met Gly Gly Asn Val Leu Ile Phe His Phe Arg Cys Leu Trp Lys Cys  
1 5 10 15  
Trp Gly Arg Val Arg Gly Leu Phe Leu Ser Gly Gly Pro Leu Thr Gln  
20 25 30  
Ser Ile Phe Asn Ser Leu Phe  
35

<210> 556  
<211> 12  
<212> PRT  
<213> Homo sapiens

<400> 556  
Gly Gly Asn Val Leu Ile Phe His Phe Arg Cys Leu  
1 5 10

<210> 557  
<211> 70  
<212> PRT  
<213> Homo sapiens

<400> 557  
Met Ser His Cys Thr Trp Pro Leu Asp Tyr Ser Phe Leu Phe Met Ser  
1 5 10 15  
Cys Ala Ser Ile Cys Gly Gln His Gly Ala Ser Val Gly Asn Thr Gly  
20 25 30  
Arg Lys Gln Val Gln Ile Trp Leu Gly Leu Leu Ala Trp Gln Leu Gly  
35 40 45  
Lys Pro Pro Leu Leu Trp Leu Leu Pro Arg Leu Phe Met Thr Val Ala  
50 55 60  
Ala His Gln Leu Gln Leu  
65 70

<210> 558  
<211> 70  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 558

Met Ser His Cys Thr Trp Pro Leu Asp Tyr Ser Phe Leu Phe Met Ser  
 1 5 10 15

Cys Ala Ser Ile Cys Gly Gln His Gly Ala Ser Val Gly Asn Thr Gly  
 20 25 30

Arg Lys Gln Val Gln Ile Trp Leu Gly Leu Leu Ala Trp Gln Leu Gly  
 35 40 45

Lys Pro Pro Leu Leu Trp Leu Leu Pro Arg Leu Phe Met Thr Val Ala  
 50 55 60

Ala His Gln Leu Gln Leu  
 65 70

&lt;210&gt; 559

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 559

Val Tyr Gln Arg Lys Ser Thr Val Val Leu Gly Gly Phe Leu Leu Trp  
 1 5 10 15

Asp Ile Asp Phe Leu Phe Phe Phe Arg Asn Ile Val Cys Cys Asn Leu  
 20 25 30

Asn Lys Asn Tyr Asp Ile Leu Arg Tyr Phe Ile Asp Lys Pro Asn Lys  
 35 40 45

Asn Ile Cys Phe Tyr Phe Lys Val Asn Val Phe Leu Phe Ser  
 50 55 60

&lt;210&gt; 560

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 560

Met Leu Arg Phe Ser Ser Ser Leu Leu Glu Cys Leu Leu Ser Pro Leu  
 1 5 10 15

Cys Leu Thr Asp Ala Thr Gly His His Leu Asp His Pro Ile Leu Val  
 20 25 30

Pro Val Gln Val Gln Lys Arg Asn Asn Val Leu Lys Phe Thr Ser  
 35 40 45

&lt;210&gt; 561

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 561

Met Leu Ile Thr Ile Ser Leu Glu Leu Leu Leu Arg Leu Val Gly Ala  
 1 5 10 15

Ala Leu Gln Glu Lys Gln Gln Pro Leu Ser Leu Pro Ser Cys Gly Glu  
 20 25 30

Gln Gly Gly Asp Glu Arg Tyr Leu Gly Arg Pro Gly Lys Ser Leu Lys  
 35 40 45

Asn

&lt;210&gt; 562

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 562

Met Leu Ile Thr Ile Ser Leu Glu Leu Leu Leu Arg Leu Val Gly Ala  
 1 5 10 15

Ala Leu Gln Glu Lys Gln Gln Pro Leu Ser Leu Pro Ser Cys Gly Glu  
 20 25 30

Gln Gly Gly Asp Glu Arg Tyr Leu Gly Arg Pro Gly Lys Ser Leu Lys  
 35 40 45

Asn

&lt;210&gt; 563

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 563

Met Leu Ile Phe Ser Phe Leu Ser Phe Trp Phe Phe Gln Ser Cys Gln  
 1 5 10 15

Gly Phe Ile Tyr Phe Met Ser Ile Xaa Glu Glu Pro Val Ala Asp Phe  
 20 25 30

Val His Leu Tyr Cys Val Phe Tyr Phe Gln Gly Cys Ser Tyr Leu  
 35 40 45

&lt;210&gt; 564

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 564

Phe Ser Asn Thr Trp Ser Phe Pro Lys Asp Ala Phe Tyr Thr Asp Phe  
 1 5 10 15

Tyr Leu Lys Ser Ile Val Val Arg Glu Tyr Cys Val Phe Cys Ser Asn  
 20 25 30

Pro Leu Lys Tyr Ile Glu Thr Cys Leu Ile Cys Lys Tyr Arg Phe Ser  
 35 40 45

Tyr Phe Ser Ile Cys Asp Trp Lys Asn Ile Asn Leu Thr Ile Trp Gly  
 50 55 60

Tyr Ser Ile His Thr Ile His Thr Asn Ile Tyr Val Phe Ser Val Leu  
 65 70 75 80

Gln Asn Phe Tyr Ile Phe Pro Gly Ile Cys Leu Leu Ala Ser Leu Ile  
 85 90 95

Thr Glu Arg Cys Thr Ile Leu Ser Cys Thr Phe Phe Cys Cys Ser Leu  
 100 105 110

Ile Phe Leu Ser Tyr Pro Tyr Gly Asn Cys Ile Lys Cys Ile Pro Ile  
 115 120 125

&lt;210&gt; 565

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 565

Met Leu Ile Phe Ser Phe Leu Ser Phe Trp Phe Phe Gln Ser Cys Gln  
 1 5 10 15

Gly Phe Ile Tyr Phe Met Ser Ile Phe Glu Glu Pro Val Ala Asp Phe  
 20 25 30

Val His Leu Tyr Cys Val Phe Tyr Phe Gln Gly Cys Ser Tyr Leu  
 35 40 45

&lt;210&gt; 566

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 566

Pro Cys Ser Trp Leu Arg Ala Val Thr Leu Cys Gln Asn Leu His Trp  
 1 5 10 15

Ala Cys Thr Ser Cys His Cys Asn Cys Pro Cys Gln Cys Pro Gln Leu

20

25

30

Leu Phe

&lt;210&gt; 567

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

Met Cys Leu Leu Phe Leu Leu Pro Arg Phe Pro Val Ser Trp Arg Ala  
 1 5 10 15

Gly Val Asp Gly Ala Ala Pro Ser Ser Gln Asp Leu Trp Arg Ile Arg  
 20 25 30

Ser Pro Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp  
 35 40 45

Met Ile Lys Arg Ala Leu Asp Phe Arg Glu Ser Arg Glu Ala Glu Pro  
 50 55 60

His Pro Leu Trp Glu Tyr Pro Cys Arg Ser Leu Ser Glu Pro Trp Gln  
 65 70 75 80

Ile Leu Thr Phe Asp Phe Gln Gln Pro Val Pro Leu Gln Pro Leu Cys  
 85 90 95

Ala Glu Gly Thr Val Glu Leu Arg Arg Pro Gly Gln Ser His Ala Ala  
 100 105 110

Val Leu Trp Met Glu Tyr His Leu Thr Pro Glu Cys Thr Leu Ser Thr  
 115 120 125

Gly Leu Leu Glu Pro Ala Asp Pro Glu Gly Gly Cys Cys Trp Asn Pro  
 130 135 140

His Cys Lys Gln Ala Val Tyr Phe Phe Ser Pro Ala Pro Asp Pro Arg  
 145 150 155 160

Ala Leu Leu Gly Gly Pro Arg Thr Val Ser Tyr Ala Val Glu Phe His  
 165 170 175

Pro Asp Thr Gly Asp Ile Ile Met Glu Phe Arg His Ala Asp Thr Pro  
 180 185 190

Asp

&lt;210&gt; 568

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 568

Met Cys Leu Leu Phe Leu Leu Pro Arg Phe Pro Val Ser Trp Arg Ala  
 1 5 10 15  
 Gly Val Asp Gly Ala Ala Pro Ser Ser Gln Asp Leu Trp Arg Ile Arg  
 20 25 30  
 Ser Pro Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp  
 35 40 45  
 Met Ile Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys  
 50 55 60  
 Ser Cys Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly  
 65 70 75 80  
 Ser Ser Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe  
 85 90 95  
 Asn Met Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val  
 100 105 110  
 Thr Leu Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn  
 115 120 125  
 Cys Pro Cys Gln Cys Pro Gln Leu Leu Phe  
 130 135

<210> 569  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 569  
 Met Arg Gly Asp Ala Pro Pro Ile Asn Leu Gly Cys Leu Pro Phe Phe  
 1 5 10 15  
 Leu Cys Leu Phe Phe Phe Cys His Leu Lys Tyr Tyr Leu Ser Leu Leu  
 20 25 30  
 Gly Asn Leu Arg Pro Ile Asp Glu Val Tyr Met Cys Leu Ser Asp Ile  
 35 40 45

<210> 570  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 570  
 Phe Leu Ser Leu Leu Phe Phe Phe Leu Ala Phe Ser Phe Phe Thr Glu  
 1 5 10 15

Ala

<210> 571  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 571  
 Met Arg Gly Asp Ala Pro Pro Ile Asn Leu Gly Cys Leu Pro Phe Phe  
     1                    5                    10                    15  
 Leu Cys Leu Phe Phe Phe Cys His Leu Lys Tyr Tyr Leu Ser Leu Leu  
             20                    25                    30  
 Gly Asn Leu Arg Pro Ile Asp Glu Val Tyr Met Cys Leu Ser Asp Ile  
             35                    40                    45

<210> 572  
 <211> 184  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (153)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (178)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (181)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (182)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 572  
 Val Arg Met Lys Tyr Leu Phe Phe Ser Trp Leu Val Val Phe Val Gly  
     1                    5                    10                    15  
 Ser Trp Ile Ile Tyr Val Gln Tyr Ser Thr Tyr Thr Glu Leu Cys Arg  
             20                    25                    30  
 Gly Lys Asp Cys Lys Lys Ile Ile Cys Asp Lys Tyr Lys Thr Gly Val  
             35                    40                    45  
 Ile Asp Gly Pro Ala Cys Asn Ser Leu Cys Val Thr Glu Thr Leu Tyr  
             50                    55                    60



Phe Gly Lys Cys Leu Ser Thr Lys Pro Asn Asn Gln Met Tyr Leu Gly  
65 70 75 80

Ile Trp Asp Asn Leu Pro Gly Val Val Lys Cys Gln Met Glu Gln Ala  
85 90 95

Leu His Leu Asp Phe Gly Thr Glu Leu Glu Pro Arg Lys Glu Ile Val  
100 105 110

Leu Phe Asp Lys Pro Thr Arg Gly Thr Thr Val Gln Lys Phe Lys Glu  
115 120 125

Met Val Tyr Ser Leu Phe Lys Ala Lys Leu Gly Asp Gln Gly Asn Leu  
130 135 140

Ser Glu Leu Val Asn Leu Ile Leu Xaa Val Ala Asp Gly Asp Lys Asp  
145 150 155 160

Gly Gln Val Ser Leu Gly Glu Ala Lys Ser Ala Trp Ala Leu Leu Gln  
165 170 175

Leu Xaa Glu Phe Xaa Xaa His Gly  
180

<210> 573

<211> 3

<212> PRT

<213> Homo sapiens

<400> 573

Tyr Thr Val

1

<210> 574

<211> 403

<212> PRT

<213> Homo sapiens

<400> 574

Met Lys Tyr Leu Phe Phe Ser Trp Leu Val Val Phe Val Gly Ser Trp  
1 5 10 15

Ile Ile Tyr Val Gln Tyr Ser Thr Tyr Thr Glu Leu Cys Arg Gly Lys  
20 25 30

Asp Cys Lys Lys Ile Ile Cys Asp Lys Tyr Lys Thr Gly Val Ile Asp  
35 40 45

Gly Pro Ala Cys Asn Ser Leu Cys Val Thr Glu Thr Leu Tyr Phe Gly  
50 55 60

Lys Cys Leu Ser Thr Lys Pro Asn Asn Gln Met Tyr Leu Gly Ile Trp  
65 70 75 80

Asp Asn Leu Pro Gly Val Val Lys Cys Gln Met Glu Gln Ala Leu His

[illegible]

<210> 575  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 575  
 Met Ser Arg Phe Ser Gln Asn Phe Arg Gly Lys Glu Asp His Ile Val  
 1 5 10 15  
 Phe Leu Phe Cys Phe Asn Glu Ile Phe Phe Leu Leu Leu Met Leu Leu  
 20 25 30  
 Val Phe Pro Trp Leu Leu Ser Lys Ala Val Ser Gly Phe Ala Glu Arg  
 35 40 45  
 Leu Glu Met Thr Thr Ile Phe Arg Val Ser Arg Ser  
 50 55 60

<210> 576  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 576  
 Met Ser Arg Phe Ser Gln Asn Phe Arg Gly Lys Glu Asp His Ile Val  
 1 5 10 15  
 Phe Leu Phe Cys Phe Asn Glu Ile Phe Phe Leu Leu Leu Met Leu Leu  
 20 25 30  
 Val Phe Pro Trp Leu Leu Ser Lys Ala Val Ser Gly Phe Ala Glu Arg  
 35 40 45  
 Leu Glu Met Thr Thr Ile Phe Arg Val Ser Arg Ser  
 50 55 60

<210> 577  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 577  
 Met Gly Gln Val Trp Arg Val Pro Pro Leu Leu Leu Ser Val Gln Val  
 1 5 10 15  
 Phe Leu Thr Met Ala His Ala Phe His Gln Ala Pro Glu Leu Gln Trp  
 20 25 30  
 Leu Gly Leu Trp Phe Trp Val Arg Leu Phe Ala Gly Gly Asp Gly Gly  
 35 40 45  
 Leu His Leu Asn Ile Ser Ser Val Thr Leu Pro Leu Leu His Gly Lys

50

55

60

Gln Leu Ser Arg Glu Val Pro Ser Cys Gln Gly Lys Pro Arg Leu Gly  
 65 70 75 80

Arg Pro Pro Tyr Lys Glu Pro Gln Asp Cys Ser His Gly Cys His Leu  
 85 90 95

Ser Trp Lys Gly Arg Phe Met Gly Phe Pro Gly Thr Pro Arg Leu Ser  
 100 105 110

Trp Pro Arg Gly Lys Arg Trp Leu Leu Gln Glu Phe Asp Leu Ser  
 115 120 125

&lt;210&gt; 578

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

Leu Gly Lys Pro Trp Arg Tyr Pro Thr  
 1 5

&lt;210&gt; 579

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 579

Met Gly Gln Val Trp Arg Val Pro Pro Leu Leu Leu Ser Val Gln Val  
 1 5 10 15

Phe Leu Thr Met Ala His Ala Phe His Gln Ala Pro Glu Leu Gln Trp  
 20 25 30

Leu Gly Leu Trp Phe Trp Val Arg Leu Phe Ala Gly Gly Asp Gly Gly  
 35 40 45

Leu His Leu Asn Ile Ser Ser Val Thr Leu Pro Leu Leu His Gly Lys  
 50 55 60

Gln Leu Ser Arg Glu Val Pro Ser Cys Gln Gly Lys Pro Arg Leu Gly  
 65 70 75 80

Arg Pro Pro Tyr Lys Glu Pro Gln Asp Cys Ser His Gly Cys His Leu  
 85 90 95

Ser Trp Lys Gly Arg Phe Met Gly Phe Pro Gly Thr Pro Arg Leu Ser  
 100 105 110

Trp Pro Arg Gly Lys Arg Trp Leu Leu Gln Glu Phe Asp Leu Ser  
 115 120 125

&lt;210&gt; 580

<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 580

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala  
1 5 10 15

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser  
20 25 30

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr  
35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln  
50 55 60

<210> 581  
<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 581

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala  
1 5 10 15

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser  
20 25 30

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr  
35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln  
50 55 60

<210> 582  
<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 582

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala  
1 5 10 15

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser  
20 25 30

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr  
35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln  
50 55 60

<210> 583

<211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 583  
 Met Leu Val Ser Met Cys Met Gly Leu Leu Phe Leu Gln Val Gly Lys  
           1                  5                  10                  15  
 Gln Cys Ile Ala Phe Phe Tyr Thr Glu Ser Thr Arg Arg Pro Lys His  
                   20                  25                  30  
 Leu Lys Thr Met Gly Ser Gly Tyr Ala  
           35                  40

<210> 584  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 584  
 Met Leu Val Ser Met Cys Met Gly Leu Leu Phe Leu Gln Val Gly Lys  
           1                  5                  10                  15  
 Gln Cys Ile Ala Phe Phe Tyr Thr Glu Ser Thr Arg Arg Pro Lys His  
                   20                  25                  30  
 Leu Lys Thr Met Gly Ser Gly Tyr Ala  
           35                  40

<210> 585  
 <211> 241  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 585  
 Met Phe Lys Leu Arg Gln Met Arg Val Glu Lys Phe Ile Tyr Glu Asn  
           1                  5                  10                  15  
 His Pro Asp Val Phe Ser Asp Ser Ser Met Asp His Phe Gln Lys Phe  
                   20                  25                  30  
 Leu Pro Thr Val Gly Gly Gln Leu Gly Thr Ala Gly Gln Gly Phe Ser  
           35                  40                  45  
 Tyr Ser Lys Ser Asn Gly Arg Gly Gly Xaa Gln Ala Gly Gly Ser Gly  
           50                  55                  60  
 Ser Ala Gly Gln Tyr Gly Ser Asp Gln Gln His His Leu Gly Ser Gly  
           65                  70                  75                  80  
 Ser Gly Ala Gly Gly Thr Gly Gly Pro Ala Gly Gln Ala Gly Arg Gly

85 90 95

Gly Ala Ala Gly Thr Ala Gly Val Gly Glu Thr Gly Ser Gly Asp Gln  
100 105 110

Ala Gly Gly Glu Gly Lys His Ile Thr Val Phe Lys Thr Tyr Ile Ser  
115 120 125

Pro Trp Glu Arg Ala Met Gly Val Asp Pro Gln Gln Lys Met Glu Leu  
130 135 140

Gly Ile Asp Leu Leu Ala Tyr Gly Ala Lys Ala Glu Leu Pro Lys Tyr  
145 150 155 160

Lys Ser Phe Asn Arg Thr Ala Met Pro Tyr Gly Gly Tyr Glu Lys Ala  
165 170 175

Ser Lys Arg Met Thr Phe Gln Met Pro Lys Phe Asp Leu Gly Pro Leu  
180 185 190

Leu Ser Glu Pro Leu Val Leu Tyr Asn Gln Asn Leu Ser Asn Arg Pro  
195 200 205

Ser Phe Asn Arg Thr Pro Ile Pro Trp Leu Ser Ser Gly Glu Pro Val  
210 215 220

Asp Tyr Asn Val Asp Ile Gly Ile Pro Leu Asp Gly Glu Thr Glu Glu  
225 230 235 240

Leu

&lt;210&gt; 586

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 586

Met Phe Lys Leu Arg Gln Met Arg Val Glu Lys Phe Ile Tyr Glu Asn  
1 5 10 15

His Pro Asp Val Phe Ser Asp Ser Ser Met Asp His Phe Gln Lys Phe  
20 25 30

Leu Pro Thr Val Gly Gly Gln Leu Gly Thr Ala Gly Gln Gly Phe Ser  
35 40 45

Tyr Ser Lys Ser Asn Gly Arg Gly Gly Ser Gln Ala Gly Gly Ser Gly  
50 55 60

Ser Ala Gly Gln Tyr Gly Ser Asp Gln Gln His His Leu Gly Ser Gly  
65 70 75 80

Ser Gly Ala Gly Gly Thr Gly Gly Pro Ala Gly Gln Ala Gly Arg Gly  
85 90 95

Gly Ala Ala Gly Thr Ala Gly Val Gly Glu Thr Gly Ser Gly Asp Gln  
100 105 110

Ala Gly Gly Glu Gly Lys His Ile Thr Val Phe Lys Thr Tyr Ile Ser  
 115 120 125

Pro Trp Glu Arg Ala Met Gly Val Asp Pro Gln Gln Lys Met Glu Leu  
 130 135 140

Gly Ile Asp Leu Leu Ala Tyr Gly Ala Lys Ala Glu Leu Pro Lys Tyr  
 145 150 155 160

Lys Ser Phe Asn Arg Thr Ala Met Pro Tyr Gly Gly Tyr Glu Lys Ala  
 165 170 175

Ser Lys Arg Met Thr Phe Gln Met Pro Lys Phe Asp Leu Gly Pro Leu  
 180 185 190

Leu Ser Glu Pro Leu Val Leu Tyr Asn Gln Asn Leu Ser Asn Arg Pro  
 195 200 205

Ser Phe Asn Arg Thr Pro Ile Pro Trp Leu Ser Ser Gly Glu Pro Val  
 210 215 220

Asp Tyr Asn Val Asp Ile Gly Ile Pro Leu Asp Gly Glu Thr Glu Glu  
 225 230 235 240

Leu

<210> 587  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 587  
 Arg Phe Pro Ile Ser Pro His Pro Tyr Gln His Ala Phe Leu Phe Phe  
 1 5 10 15

Phe

<210> 588  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 588  
 Leu Arg Val Ala Val Gly Leu Cys Pro Arg Asp Ala Leu Leu Leu Ser  
 1 5 10 15

Pro Pro Arg Val Val Val Cys Gly Val Thr Asp Val Val Val Asp Lys  
 20 25 30

Gly Val Gly Leu Leu Val Val  
 35



<210> 589  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 589  
 Met Arg Val Thr Xaa Ser Ser His Pro Cys Gln Arg Leu Val Leu Gln  
           1                  5                  10                  15  
 Cys Ser Gly Phe Trp Leu Phe  
                   20

<210> 590  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 590  
 Met Arg Val Thr Val Ser Ser His Pro Cys Gln Arg Leu Val Leu Ser  
           1                  5                  10                  15  
 Val Phe Trp Leu Leu Ala Ile Leu Ile Gly Val  
                   20                  25

<210> 591  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 591  
 Met Glu Ser Ser Thr Gly Lys Ala Ser Pro Arg Cys His Ile His Cys  
           1                  5                  10                  15  
 Val Pro Pro Phe Pro Pro Pro Cys Pro Val Lys Arg Val Gly Arg Leu  
                   20                  25                  30  
 Phe Leu Phe Phe Gln His Phe Pro Gln Gly Thr Val Ile Ile Pro Leu  
           35                  40                  45  
 Met Pro Ser Pro Pro Leu Asp  
           50                  55

<210> 592  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens  
 <220>

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 592

Tyr Ser Lys Thr His Ser Ile Lys Ser Ala Gln Pro Gly Val Pro Thr  
 1 5 10 15

Ser Ala Arg Ser Pro Arg Gln Pro Ser Pro Gly Pro Thr Pro Pro Pro  
 20 25 30

Phe Pro Gly Asn Arg Gly Thr Ala Leu Gly Gly Gly Ser Ile Arg Gln  
 35 40 45

Ser Pro Leu Ser Ser Ser Ser Pro Phe Ser Asn Arg Pro Pro Leu Pro  
 50 55 60

Pro Thr Pro Ser Arg Ala Leu Asp Asp Lys Pro Pro Pro Pro Pro Pro  
 65 70 75 80

Pro Val Gly Asn Arg Pro Ser Ile His Arg Glu Ala Val Pro Pro Pro  
 85 90 95

Pro Pro Gln Asn Asn Lys Pro Pro Val Pro Ser Thr Pro Arg Pro Ser  
 100 105 110

Ala Ala Ser Gln Ala Pro Pro Pro Pro Pro Pro Pro Ser Arg Pro Gly  
 115 120 125

Xaa Pro Pro Leu Pro Pro Ser Ser Ser Gly Asn Asp Glu Thr Pro Arg  
 130 135 140

Leu Pro Gln Arg Asn Leu Ser Leu Ser Ser Thr Pro Pro Leu Pro  
 145 150 155 160

Ser Pro Gly Arg Ser Gly Pro Leu Pro Pro Pro Pro Ser Glu Arg Pro  
 165 170 175

Pro Pro Pro Val Arg Asp Pro Pro Gly Arg Ser Gly Pro Leu Pro Pro  
 180 185 190

Pro Pro Pro Val Ser Arg Asn Gly Ser Thr Ser Arg Ala Leu Pro Ala  
 195 200 205

Thr Pro Gln Leu Pro Ser Arg Ser Gly Val Asp Ser Pro Arg Ser Gly  
 210 215 220

Pro Arg Pro Pro Leu Pro Pro Asp Arg Pro Ser Ala Gly Ala Pro Pro  
 225 230 235 240

Pro Pro Pro Pro Ser Thr Ser Ile Arg Asn Gly Phe Gln Asp Ser Pro  
 245 250 255

Cys Glu Asp Glu Trp Glu Ser Arg Phe Tyr Phe His Pro Ile Ser Asp  
 260 265 270

Leu Pro Pro Pro Glu Pro Tyr Val Gln Thr Thr Lys Ser Tyr Pro Ser  
 275 280 285

Lys Leu Ala Arg Asn Glu Ser Arg Ser Gly Ser Asn Arg Arg Glu Arg

290

295

300

Gly Ala Pro Pro Leu Pro Pro Ile Pro Arg  
 305 310

<210> 593  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 593  
 Met Glu Ser Ser Thr Gly Lys Ala Ser Pro Arg Cys His Ile His Cys  
 1 5 10 15  
 Val Pro Pro Phe Pro Pro Pro Cys Pro Val Lys Arg Val Gly Arg Leu  
 20 25 30  
 Phe Leu Phe Phe Gln His Phe Pro Gln Gly Thr Val Ile Ile Pro Leu  
 35 40 45

Met Pro Ser Pro Pro Leu Asp  
 50 55

<210> 594  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (23)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 594  
 Phe Ile Ile His Ser Ile Ser Pro Val Ala Leu Asn Pro Gln Ala His  
 1 5 10 15  
 Asp Leu Pro Phe Ser Leu Xaa Ser Cys Val Ser Val Phe Asn Leu Arg  
 20 25 30  
 Ser Phe Pro Thr Met Asp Ser Cys Thr Thr Leu Asn Glu Thr Ser Ile  
 35 40 45

Phe Gln Arg Arg Val  
 50

<210> 595  
 <211> 261  
 <212> PRT  
 <213> Homo sapiens

<400> 595  
 Gly Ile Phe Arg Ser Leu Arg Val Leu Phe Pro Leu Phe Ser Val Gly  
 1 5 10 15

Arg Pro Gln Phe Ala Arg Ser Leu Ser Ala Ala Pro Gln Leu Ser Asp  
                   20                  25                  30  
 Thr Ala Asp Thr Met Gly Phe Gly Asp Leu Lys Ser Pro Ala Gly Leu  
                   35                  40                  45  
 Gln Val Leu Asn Asp Tyr Leu Ala Asp Lys Ser Tyr Ile Glu Gly Tyr  
                   50                  55                  60  
 Val Pro Ser Gln Ala Asp Val Ala Val Phe Glu Ala Val Ser Ser Pro  
                   65                  70                  75                  80  
 Pro Pro Ala Asp Leu Cys His Ala Leu Arg Trp Tyr Asn His Ile Lys  
                   85                  90                  95  
 Ser Tyr Glu Lys Glu Lys Ala Ser Leu Pro Gly Val Lys Lys Ala Leu  
                   100                  105                  110  
 Gly Lys Tyr Gly Pro Ala Asp Val Glu Asp Thr Thr Gly Ser Gly Ala  
                   115                  120                  125  
 Thr Asp Ser Lys Asp Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp Asp  
                   130                  135                  140  
 Glu Glu Glu Ser Glu Glu Ala Lys Arg Leu Arg Glu Glu Arg Leu Ala  
                   145                  150                  155                  160  
 Gln Tyr Glu Ser Lys Lys Ala Lys Lys Pro Ala Leu Val Ala Lys Ser  
                   165                  170                  175  
 Ser Ile Leu Leu Asp Val Lys Pro Trp Asp Asp Glu Thr Asp Met Ala  
                   180                  185                  190  
 Lys Leu Glu Glu Cys Val Arg Ser Ile Gln Ala Asp Gly Leu Val Trp  
                   195                  200                  205  
 Gly Ser Ser Lys Leu Val Pro Val Gly Tyr Gly Ile Lys Lys Leu Gln  
                   210                  215                  220  
 Ile Gln Cys Val Val Glu Asp Asp Lys Val Gly Thr Asp Met Leu Glu  
                   225                  230                  235                  240  
 Glu Gln Ile Thr Ala Phe Glu Asp Tyr Val Gln Ser Met Asp Val Ala  
                   245                  250                  255  
 Ala Phe Asn Lys Ile  
                   260

&lt;210&gt; 596

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 596

Met Lys Lys Glu Met Val Leu Leu Thr Thr Thr Tyr Phe Ser Leu His  
                   1                  5                  10                  15

Val Lys Val Phe Phe Cys Leu Phe Val Cys Phe Ser Ile Leu Ser Ser  
                   20                  25                  30

Ser Arg Arg Gly Ser Leu Ala Asn Asn Ser Ser Trp  
           35                  40

<210> 597

<211> 44

<212> PRT

<213> Homo sapiens

<400> 597

Met Lys Lys Glu Met Val Leu Leu Thr Thr Thr Tyr Phe Ser Leu His  
   1                  5                  10                  15

Val Lys Val Phe Phe Cys Leu Phe Val Cys Phe Ser Ile Leu Ser Ser  
                   20                  25                  30

Ser Arg Arg Gly Ser Leu Ala Asn Asn Ser Ser Trp  
           35                  40

<210> 598

<211> 42

<212> PRT

<213> Homo sapiens

<400> 598

Met Phe Thr Leu Leu Leu Ser Ser Phe Phe Leu Gln His Cys Leu Gln  
   1                  5                  10                  15

Asn Asn Leu Tyr Ala Ser Glu Arg Glu Gln Ile Phe Ser Asn Phe Leu  
                   20                  25                  30

Gln Leu Ser Ser Leu Lys Arg Arg Ile Cys  
           35                  40

<210> 599

<211> 6

<212> PRT

<213> Homo sapiens

<400> 599

Leu Leu Leu Ser Ser Phe  
   1                  5

<210> 600

<211> 42

<212> PRT

<213> Homo sapiens

<400> 600

Met Phe Thr Leu Leu Leu Ser Ser Phe Phe Leu Gln His Cys Leu Gln



&lt;400&gt; 602

Met Gly Val Ala Leu Pro Ser Pro Leu Leu Cys Ser Leu Pro Leu Phe  
 1 5 10 15

Leu Leu Phe Gly Asp Val Ser Gly Ser Ser Ser Leu Leu Ala Leu Leu  
 20 25 30

Pro Phe Leu His Pro Trp His His Pro Ser Leu Ser  
 35 40

&lt;210&gt; 603

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 603

Met Gly Val Ala Leu Pro Ser Pro Leu Leu Cys Ser Leu Pro Leu Phe  
 1 5 10 15

Leu Leu Phe Gly Asp Val Ser Gly Ser Ser Ser Leu Leu Ala Leu Leu  
 20 25 30

Pro Phe Leu His Pro Trp His His Pro Ser Leu Ser  
 35 40

&lt;210&gt; 604

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 604

Met Leu Ser Ala Val Leu Thr Met Leu Arg Phe Ile Ile Ala Phe Ser  
 1 5 10 15

Leu Leu Phe Cys Ser Cys Ser Thr Asp Lys His Cys Thr Trp Tyr His  
 20 25 30

Ala Leu Pro His Phe Lys Lys Ile Cys Leu Thr Glu Arg Lys Lys Met  
 35 40 45

Trp Phe Gly Leu Ala Ala Val Leu Ile Tyr Gly Ile  
 50 55 60

&lt;210&gt; 605

&lt;211&gt; 17

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 605

Ile Thr Phe Ser Cys Phe Phe Cys Asn Asn Cys Ser Gln Val Asn Leu  
 1 5 10 15

Gln

<210> 606  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 606  
 Met Leu Ser Ala Val Leu Thr Met Leu Arg Phe Ile Ile Ala Phe Ser  
           1                  5                  10                  15  
 Leu Leu Phe Cys Ser Cys Ser Thr Asp Lys His Cys Thr Trp Tyr His  
                   20                  25                  30  
 Ala Leu Pro His Phe Lys Lys Ile Cys Leu Thr Glu Arg Lys Lys Met  
           35                  40                  45  
 Trp Phe Gly Leu Ala Ala Val Leu Ile Tyr Gly Ile  
           50                  55                  60

<210> 607  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (87)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 607  
 Leu Gly Ala Glu His Phe Lys Cys Ile Thr Trp Val Ala Gly Trp Ala  
           1                  5                  10                  15  
 Val Pro Gly Leu Lys Gly Val Gly Ser Phe Phe Gln Gly Ala Pro Ser  
                   20                  25                  30  
 Ala Ser Trp His Arg Thr Leu Ala Pro Ala His Pro Lys Leu Thr Leu  
           35                  40                  45  
 Val Gly Val Gly Pro Leu Thr Gln Thr Trp Pro Leu Pro Ser Leu Val  
           50                  55                  60  
 Leu Leu Pro Gln Leu Ser Pro Val Cys Gly Arg Val Cys Leu Asp Arg  
           65                  70                  75                  80  
 Leu Trp Ala Gly Gln Gly Xaa Gly Gln Ala Glu Xaa Glu Phe Val Leu  
                   85                  90                  95  
 Gly



&lt;210&gt; 608

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 608

```

Met Arg Leu Leu Ala Gly Trp Leu Cys Leu Ser Leu Ala Ser Val Trp
 1           5           10           15

Leu Ala Arg Arg Met Trp Thr Leu Arg Ser Pro Leu Thr Arg Ser Leu
          20           25           30

Tyr Val Asn Met Thr Ser Gly Pro Gly Gly Pro Ala Ala Ala Gly
          35           40           45

Gly Arg Lys Glu Asn His Gln Trp Tyr Val Cys Asn Arg Glu Lys Leu
          50           55           60

Cys Glu Ser Leu Gln Ala Val Phe Val Gln Ser Tyr Leu Asp Gln Gly
          65           70           75           80

Thr Gln Ile Phe Leu Asn Asn Ser Ile Glu Lys Ser Gly Trp Leu Phe
          85           90           95

Ile Gln Leu Tyr His Ser Phe Val Ser Ser Val Phe Ser Leu Phe Met
          100          105          110

Ser Arg Thr Ser Ile Asn Gly Leu Leu Gly Arg Gly Ser Met Phe Val
          115          120          125

Phe Ser Pro Asp Gln Phe Gln Arg Leu Leu Lys Ile Asn Pro Asp Trp
          130          135          140

Lys Thr His Arg Leu Leu Asp Leu Gly Ala Gly Asp Gly Glu Val Thr
          145          150          155          160

Lys Ile Met Ser Pro His Phe Glu Glu Ile Tyr Ala Thr Glu Leu Ser
          165          170          175

Glu Thr Met Ile Trp Gln Leu Gln Lys Lys Lys Tyr Arg Val Leu Gly
          180          185          190

Ile Asn Glu Trp Gln Asn Thr Gly Phe Gln Tyr Asp Val Ile Ser Cys
          195          200          205

Leu Asn Leu Leu Asp Arg Cys Asp Gln Pro Leu Thr Leu Leu Lys Asp
          210          215          220

Ile Arg Ser Val Leu Glu Pro Thr Arg Gly Arg Val Ile Leu Ala Leu
          225          230          235          240

Val Leu Pro Phe His Pro Tyr Val Glu Asn Val Gly Gly Lys Trp Glu
          245          250          255

Lys Pro Ser Glu Ile Leu Glu Ile Lys Gly Gln Asn Trp Glu Glu Gln
          260          265          270

```

Val Asn Ser Leu Pro Glu Val Phe Arg Lys Ala Gly Phe Val Ile Glu  
 275 280 285

Ala Phe Thr Arg Leu Pro Tyr Leu Cys Glu Gly Asp Met Tyr Asn Asp  
 290 295 300

Tyr Tyr Val Leu Asp Asp Ala Val Phe Val Leu Lys Pro Val  
 305 310 315

<210> 609

<211> 318

<212> PRT

<213> Homo sapiens

<400> 609

Met Arg Leu Leu Ala Gly Trp Leu Cys Leu Ser Leu Ala Ser Val Trp  
 1 5 10 15

Leu Ala Arg Arg Met Trp Thr Leu Arg Ser Pro Leu Thr Arg Ser Leu  
 20 25 30

Tyr Val Asn Met Thr Ser Gly Pro Gly Gly Pro Ala Ala Ala Ala Gly  
 35 40 45

Gly Arg Lys Glu Asn His Gln Trp Tyr Val Cys Asn Arg Glu Lys Leu  
 50 55 60

Cys Glu Ser Leu Gln Ala Val Phe Val Gln Ser Tyr Leu Asp Gln Gly  
 65 70 75 80

Thr Gln Ile Phe Leu Asn Asn Ser Ile Glu Lys Ser Gly Trp Leu Phe  
 85 90 95

Ile Gln Leu Tyr His Ser Phe Val Ser Ser Val Phe Ser Leu Phe Met  
 100 105 110

Ser Arg Thr Ser Ile Asn Gly Leu Leu Gly Arg Gly Ser Met Phe Val  
 115 120 125

Phe Ser Pro Asp Gln Phe Gln Arg Leu Leu Lys Ile Asn Pro Asp Trp  
 130 135 140

Lys Thr His Arg Leu Leu Asp Leu Gly Ala Gly Asp Gly Glu Val Thr  
 145 150 155 160

Lys Ile Met Ser Pro His Phe Glu Glu Ile Tyr Ala Thr Glu Leu Ser  
 165 170 175

Glu Thr Met Ile Trp Gln Leu Gln Lys Lys Lys Tyr Arg Val Leu Gly  
 180 185 190

Ile Asn Glu Trp Gln Asn Thr Gly Phe Gln Tyr Asp Val Ile Ser Cys  
 195 200 205

Leu Asn Leu Leu Asp Arg Cys Asp Gln Pro Leu Thr Leu Leu Lys Asp  
 210 215 220

Ile Arg Ser Val Leu Glu Pro Thr Arg Gly Arg Val Ile Leu Ala Leu

225                      230                      235                      240  
 Val Leu Pro Phe His Pro Tyr Val Glu Asn Val Gly Gly Lys Trp Glu  
                                  245                      250                      255  
 Lys Pro Ser Glu Ile Leu Glu Ile Lys Gly Gln Asn Trp Glu Glu Gln  
                                  260                      265                      270  
 Val Asn Ser Leu Pro Glu Val Phe Arg Lys Ala Gly Phe Val Ile Glu  
                                  275                      280                      285  
 Ala Phe Thr Arg Leu Pro Tyr Leu Cys Glu Gly Asp Met Tyr Asn Ala  
                                  290                      295                      300  
 Tyr Tyr Val Leu Asp Asp Ala Val Phe Val Leu Lys Pro Val  
 305                      310                      315

&lt;210&gt; 610

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (159)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (175)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 610

Met Trp Thr Leu Phe Ala Leu Ser Gly Pro Leu Phe Leu Phe Gln Val  
 1                      5                      10                      15

Leu Thr Phe Met Ile Tyr Ile Val Ser Thr Val Phe Cys Gly His Leu  
 20                      25                      30

Gly Lys Val Glu Leu Ala Ser Val Thr Leu Ala Val Ala Phe Val Asn  
 35                      40                      45

Val Cys Gly Val Ser Val Gly Val Gly Leu Ser Ser Ala Cys Asp Thr  
 50                      55                      60

Leu Met Ser Gln Ser Phe Gly Ser Pro Asn Lys Lys His Val Gly Val  
 65                      70                      75                      80

Ile Leu Gln Arg Gly Ala Leu Val Leu Leu Cys Cys Leu Pro Cys  
 85                      90                      95

Trp Ala Leu Phe Leu Asn Thr Gln His Ile Leu Leu Leu Phe Arg Gln  
 100                      105                      110

Asp Pro Asp Val Ser Arg Leu Thr Gln Asp Tyr Val Met Ile Phe Ile  
 115                      120                      125

Pro Gly Leu Pro Val Ile Phe Leu Tyr Asn Leu Leu Ala Lys Tyr Leu

130 135 140

Gln Asn Gln Val Gln Val Phe Ser Val Trp Gly Gly Pro Ser Xaa Ser  
 145 150 155 160

Thr Leu Pro Tyr Ser Ser Gly Arg Gly Ala Trp Gly Phe Pro Xaa Leu  
 165 170 175

Ser Thr Ile Cys Glu Pro Ala Leu Glu Arg Gly Ser Leu Pro Thr His  
 180 185 190

Leu Pro Tyr  
 195

<210> 611  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 611

Leu Ala Gly Pro Val Phe Ile Tyr Phe Arg Arg Ser Pro Gly Pro Lys  
 1 5 10 15

Ser Ser Val Val Trp Trp Ala Thr Val Ser Thr Val Trp Pro Thr Met  
 20 25 30

Pro Trp Phe Leu Cys  
 35

<210> 612  
 <211> 3  
 <212> PRT  
 <213> Homo sapiens

<400> 612

Ile Pro Gly  
 1

<210> 613  
 <211> 180  
 <212> PRT  
 <213> Homo sapiens

<400> 613

Met Trp Thr Leu Phe Ala Leu Ser Gly Pro Leu Phe Leu Phe Gln Val  
 1 5 10 15

Leu Thr Phe Met Ile Tyr Ile Val Ser Thr Val Phe Cys Gly His Leu  
 20 25 30

Gly Lys Val Glu Leu Ala Ser Val Thr Leu Ala Val Ala Phe Val Asn  
 35 40 45

Val Cys Gly Val Ser Val Gly Val Gly Leu Ser Ser Ala Cys Asp Thr  
 310

50

55

60

Leu Met Ser Gln Ser Phe Gly Ser Pro Asn Lys Lys His Val Gly Val  
 65 70 75 80

Ile Leu Gln Arg Gly Ala Leu Val Leu Leu Cys Cys Leu Pro Cys  
 85 90 95

Trp Ala Leu Phe Leu Asn Thr Gln His Ile Leu Leu Leu Phe Arg Gln  
 100 105 110

Asp Pro Asp Val Ser Arg Leu Thr Gln Asp Tyr Val Met Ile Phe Ile  
 115 120 125

Pro Gly Leu Pro Val Ile Phe Leu Tyr Asn Leu Leu Ala Lys Tyr Leu  
 130 135 140

Gln Asn Gln Val Gln Val Phe Glu Cys Val Gly Arg Pro Phe Ser Gln  
 145 150 155 160

His Thr Ala Leu Phe Gln Trp Glu Gly Gly Leu Gly Leu Ser Pro Ser  
 165 170 175

Leu His His Leu  
 180

&lt;210&gt; 614

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 614

Glu Lys Lys Lys Lys Lys Lys Lys Arg Pro Gly Ala Val Ala His Ala  
 1 5 10 15

Leu Ile Pro Ala Leu Trp Glu Thr Glu Ala Gly Gly Ser Pro Glu Val  
 20 25 30

Gly Ser Ser Arg Pro Ala  
 35

&lt;210&gt; 615

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 615

Met Val Arg Thr Leu Ser Leu Ala Val Leu Ser Trp Leu Pro Ala Ala  
 1 5 10 15

Val Cys

&lt;210&gt; 616

<211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 616  
 Met Val Arg Thr Leu Ser Leu Ala Val Leu Ser Trp Leu Pro Ala Ala  
           1                  5                  10                  15

Val Cys

<210> 617  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 617  
 Met Leu Leu Ser Trp Thr Val Leu Ile Ile Ile Leu Pro Phe Ala Gly  
           1                  5                  10                  15

Asp Val Ser Ser His Leu Cys Ile Leu Arg Pro Phe Ala Gly Ser Val  
                   20                  25                  30

Ser Ser Cys Leu Ser Asn Phe Lys Arg Ile  
           35                  40

<210> 618  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 618  
 Met Leu Leu Ser Trp Thr Val Leu Ile Ile Ile Leu Pro Phe Ala Gly  
           1                  5                  10                  15

Asp Val Ser Ser His Leu Cys Ile Leu Arg Pro Phe Ala Gly Ser Val  
                   20                  25                  30

Ser Ser Cys Leu Ser Asn Phe Lys Arg Ile  
           35                  40

<210> 619  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 619  
 Ser Ala Ser Cys Trp Asn Ala Asn Phe Leu Pro Arg Asn Gln Gly Arg  
           1                  5                  10                  15

Lys Leu His Cys Cys Ala Lys Lys Lys Lys Lys Pro Ser Leu His Thr  
                   20                  25                  30

Leu Lys Pro Phe Leu Asn Pro Ser Arg Glu Ser Thr Val Ala Ser Ser

35

40

45

Thr Thr Ala Ile Gly Phe Ala Ser Val Met Cys Ser Tyr Leu Leu Asp  
 50 55 60

Phe Gln Asn Ile Lys Lys Lys Lys Arg Ala Ala Ala Leu Glu Asp Pro  
 65 70 75 80

Ser Leu Arg Thr Arg Ala Cys Asp Asn Ile Ala Arg Arg  
 85 90

&lt;210&gt; 620

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (175)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (320)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (331)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (368)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 620

Met Ala Thr Ala Glu Arg Arg Ala Leu Gly Ile Gly Phe Gln Trp Leu  
 1 5 10 15

Ser Leu Ala Thr Leu Val Leu Ile Cys Ala Gly Gln Gly Gly Arg Arg  
 20 25 30

Glu Asp Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile  
 35 40 45

Leu Asp Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr  
 50 55 60

Phe Val Glu Gln Leu Ala His Lys Phe Ile Ser Pro Gln Leu Arg Met  
 65 70 75 80

Ser Phe Ile Val Phe Ser Thr Arg Gly Thr Thr Leu Met Lys Leu Thr  
 85 90 95

Glu Asp Arg Glu Gln Ile Arg Gln Gly Leu Glu Glu Leu Gln Lys Val  
 100 105 110

Leu Pro Gly Gly Asp Thr Tyr Met His Glu Gly Phe Glu Arg Ala Ser  
 115 120 125  
 Glu Gln Ile Tyr Tyr Glu Asn Arg Gln Gly Tyr Arg Thr Ala Ser Val  
 130 135 140  
 Ile Ile Ala Leu Thr Asp Gly Glu Leu His Glu Asp Leu Phe Phe Tyr  
 145 150 155 160  
 Ser Glu Arg Glu Ala Asn Arg Ser Arg Asp Leu Gly Ala Ile Xaa Tyr  
 165 170 175  
 Cys Val Gly Val Lys Asp Phe Asn Glu Thr Gln Leu Ala Arg Ile Ala  
 180 185 190  
 Asp Ser Lys Asp His Val Phe Pro Val Asn Asp Gly Phe Gln Ala Leu  
 195 200 205  
 Gln Gly Ile Ile His Ser Ile Leu Lys Lys Ser Cys Ile Glu Ile Leu  
 210 215 220  
 Ala Ala Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser Phe Gln Val Val  
 225 230 235 240  
 Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu  
 245 250 255  
 Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe  
 260 265 270  
 Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu  
 275 280 285  
 Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser  
 290 295 300  
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr Thr His Cys Ser Asp Xaa  
 305 310 315 320  
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Xaa Leu Leu Leu Ala Leu  
 325 330 335  
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys  
 340 345 350  
 Glu Val Pro Pro Pro Pro Ala Glu Glu Ser Glu Val Ser Asp His Xaa  
 355 360 365  
 Arg Met Ala Val Gly Gly Gln Gly Gly Arg Val Gly Trp Arg Ala Gly  
 370 375 380  
 Trp Ala Ala Gly His Leu Ala Pro Cys Arg Ala Glu Leu Ser Gln Ala  
 385 390 395 400  
 Gln Arg Ile

&lt;210&gt; 621



&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 621

Met Ala Thr Ala Glu Arg Arg Ala Leu Gly Ile Gly Phe Gln Trp Leu  
 1 5 10 15

Ser Leu Ala Thr Leu Val Leu Ile Cys Ala Gly Gln Gly Gly Arg Arg  
 20 25 30

Glu Asp Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile  
 35 40 45

Leu Asp Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr  
 50 55 60

Phe Val Glu Gln Leu Ala His Lys Phe Ile Ser Pro Gln Leu Arg Met  
 65 70 75 80

Ser Phe Ile Val Phe Ser Thr Arg Gly Thr Thr Leu Met Lys Leu Thr  
 85 90 95

Glu Asp Arg Glu Gln Ile Arg Gln Gly Leu Glu Glu Leu Gln Lys Val  
 100 105 110

Leu Pro Gly Gly Asp Thr Tyr Met His Glu Gly Phe Glu Arg Ala Ser  
 115 120 125

Glu Gln Ile Tyr Tyr Glu Asn Arg Gln Gly Tyr Arg Thr Ala Ser Val  
 130 135 140

Ile Ile Ala Leu Thr Asp Gly Glu Leu His Glu Asp Leu Phe Phe Tyr  
 145 150 155 160

Ser Glu Arg Glu Ala Asn Arg Ser Arg Asp Leu Gly Ala Ile Val Tyr  
 165 170 175

Cys Val Gly Val Lys Asp Phe Asn Glu Thr Gln Leu Ala Arg Ile Ala  
 180 185 190

Asp Ser Lys Asp His Val Phe Pro Val Asn Asp Gly Phe Gln Ala Leu  
 195 200 205

Gln Gly Ile Ile His Ser Ile Leu Lys Lys Ser Cys Ile Glu Ile Leu  
 210 215 220

Ala Ala Glu Pro Ser Thr Ile Cys Ala Gly Glu Ser Phe Gln Val Val  
 225 230 235 240

Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu  
 245 250 255

Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe  
 260 265 270

Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu  
 275 280 285

Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser

290                      295                      300  
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr Thr His Cys Ser Asp Gly  
 305                      310                      315                      320  
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Phe Leu Leu Leu Ala Leu  
                          325                      330                      335  
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys  
                          340                      345                      350  
 Glu Val Pro Pro Pro Pro Ala Glu Glu Ser Glu Val Ser Asp His Ser  
                          355                      360                      365  
 Arg Met Ala Val Gly Gly Gln Gly Gly Arg Val Gly Trp Arg Ala Gly  
                          370                      375                      380  
 Trp Ala Ala Gly His Leu Ala Pro Cys Arg Ala Glu Leu Ser Gln Ala  
 385                      390                      395                      400  
 Gln Arg Ile

&lt;210&gt; 622

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 622

Val Val Lys Ile Thr His Cys Pro Thr Leu Leu Thr Arg Asp Gly Asp  
 1                      5                      10                      15

Arg Ile Arg Ser Asn Gly Lys Phe Gly Gly Leu Gln Asn Lys Ala Pro  
                          20                      25                      30

Pro Met Asp Lys Leu Arg Gly Met Val Phe Gly Ala Pro Val Pro Lys  
                          35                      40                      45

Gln Cys Leu Ile Leu Gly Glu Gln Ile Asp Leu Leu Gln Gln Tyr Arg  
                          50                      55                      60

Ser Ala Val Cys Lys Leu Asp Ser Val Asn Lys Asp Leu Asn Ser Gln  
                          65                      70                      75                      80

Leu Glu Tyr Leu Arg Thr Pro Asp Met Arg Lys Lys Lys Gln Glu Leu  
                          85                      90                      95

Asp Glu His Glu Lys Xaa Leu Lys Leu Ile Glu Glu Lys Leu Gly Met  
                          100                      105                      110

Thr Pro Ile Arg Lys Cys Asn Asp Ser Leu Arg His Ser Pro Lys Val  
                          115                      120                      125

Glu Thr Thr Asp Cys Pro Val Pro Pro Lys Arg Met Arg Arg Glu Ala  
 130 135 140

Thr Arg Gln Asn Arg Ile Ile Thr Lys Thr Asp Val  
 145 150 155

<210> 623

<211> 175

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (173)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (174)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (175)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 623

Val Phe Gly Met Leu Leu Gly Asp Thr Ile Ile Leu Asp Asn Leu Asp  
 1 5 10 15

Ala Ala Asn His Tyr Arg Lys Glu Val Val Lys Ile Thr His Cys Pro  
 20 25 30

Thr Leu Leu Thr Arg Asp Gly Asp Arg Ile Arg Ser Asn Gly Lys Phe  
 35 40 45

Gly Gly Leu Gln Asn Lys Ala Pro Pro Met Asp Lys Leu Arg Gly Met  
 50 55 60

Val Phe Gly Ala Pro Val Pro Lys Gln Cys Leu Ile Leu Gly Glu Gln  
 65 70 75 80

Ile Asp Leu Leu Gln Gln Tyr Arg Ser Ala Xaa Cys Lys Leu Asp Ser  
 85 90 95

Val Asn Lys Asp Leu Asn Ser Gln Leu Glu Tyr Leu Arg Thr Pro Asp  
 100 105 110

Met Arg Lys Lys Lys Gln Glu Leu Asp Glu His Glu Lys Asn Leu Lys  
 115 120 125

Leu Ile Glu Glu Lys Leu Gly Met Thr Pro Ile Arg Lys Cys Asn Asp  
 130 135 140

Ser Leu Arg His Ser Pro Lys Val Glu Thr Thr Asp Cys Pro Val Pro  
 145 150 155 160

Pro Lys Arg Met Arg Arg Glu Ala Gly Asp Lys Arg Xaa Xaa Xaa  
 165 170 175

<210> 624

<211> 24

<212> PRT

<213> Homo sapiens

<400> 624

Met Trp His Leu Trp Arg Arg Leu Leu Ser Cys Phe Pro Val Ala Met  
 1 5 10 15

Leu Gln Asp Tyr Lys Tyr Ser Val  
 20

<210> 625

<211> 20

<212> PRT

<213> Homo sapiens

<400> 625

Ser Cys Leu Pro Val Gly Thr Asp Pro Gln Gln Met Gln Lys His Leu  
 1 5 10 15

Val Val Ile Lys  
 20

<210> 626

<211> 24

<212> PRT

<213> Homo sapiens

<400> 626

Met Trp His Leu Trp Arg Arg Leu Leu Ser Cys Phe Pro Val Ala Met  
 1 5 10 15

Leu Gln Asp Tyr Lys Tyr Ser Val  
 20

<210> 627

<211> 439

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (358)

<223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 627

Met Val Pro Ser Ser Pro Arg Ala Leu Phe Leu Leu Leu Leu Ile Leu  
 1 5 10 15  
 Ala Cys Pro Glu Pro Arg Ala Ser Gln Asn Cys Leu Ser Lys Gln Gln  
 20 25 30  
 Leu Leu Ser Ala Ile Arg Gln Leu Gln Gln Leu Leu Lys Gly Gln Glu  
 35 40 45  
 Thr Arg Phe Ala Glu Gly Ile Arg His Met Lys Ser Arg Leu Ala Ala  
 50 55 60  
 Leu Gln Asn Ser Val Gly Arg Val Gly Pro Asp Ala Leu Pro Val Ser  
 65 70 75 80  
 Cys Pro Ala Leu Asn Thr Pro Ala Asp Gly Arg Lys Phe Gly Ser Lys  
 85 90 95  
 Tyr Leu Val Asp His Glu Val His Phe Thr Cys Asn Pro Gly Phe Arg  
 100 105 110  
 Leu Val Gly Pro Ser Ser Val Val Cys Leu Pro Asn Gly Thr Trp Thr  
 115 120 125  
 Gly Glu Gln Pro His Cys Arg Gly Ile Ser Glu Cys Ser Ser Gln Pro  
 130 135 140  
 Cys Gln Asn Gly Gly Thr Cys Val Glu Gly Val Asn Gln Tyr Arg Cys  
 145 150 155 160  
 Ile Cys Pro Pro Gly Arg Thr Gly Asn Arg Cys Gln His Gln Ala Gln  
 165 170 175  
 Thr Ala Ala Pro Glu Gly Ser Val Ala Gly Asp Ser Ala Phe Ser Arg  
 180 185 190  
 Ala Pro Arg Cys Ala Gln Val Glu Arg Ala Gln His Cys Ser Cys Glu  
 195 200 205  
 Ala Gly Phe His Leu Ser Gly Ala Ala Gly Asp Ser Val Cys Gln Asp  
 210 215 220  
 Val Asn Glu Cys Glu Leu Tyr Gly Gln Glu Gly Arg Pro Arg Leu Cys  
 225 230 235 240  
 Met His Ala Cys Val Asn Thr Pro Gly Ser Tyr Arg Cys Thr Cys Pro  
 245 250 255  
 Gly Gly Tyr Arg Thr Leu Ala Asp Gly Lys Ser Cys Glu Asp Val Asp  
 260 265 270  
 Glu Cys Val Gly Leu Gln Pro Val Cys Pro Gln Gly Thr Thr Cys Ile  
 275 280 285  
 Asn Thr Gly Gly Ser Phe Gln Cys Val Ser Pro Glu Cys Pro Glu Gly  
 290 295 300  
 Ser Gly Asn Val Ser Tyr Val Lys Thr Ser Pro Phe Gln Cys Glu Arg

```

<400> 628
Met Val Pro Ser Ser Pro Arg Ala Leu Phe Leu Leu Leu Leu Ile Leu
  1          5          10          15
Ala Cys Pro Glu Pro Arg Ala Ser Gln Asn Cys Leu Ser Lys Gln Gln
  20          25          30
Leu Leu Ser Ala Ile Arg Gln Leu Gln Gln Leu Leu Lys Gly Gln Glu
  35          40          45
Thr Arg Phe Ala Glu Gly Ile Arg His Met Lys Ser Arg Leu Ala Ala
  50          55          60
Leu Gln Asn Ser Val Gly Arg Val Gly Pro Asp Ala Leu Pro Val Ser
  65          70          75          80
Cys Pro Ala Leu Asn Thr Pro Ala Asp Gly Arg Lys Phe Gly Ser Lys
  85          90          95
Tyr Leu Val Asp His Glu Val His Phe Thr Cys Asn Pro Gly Phe Arg
  100          105          110
Leu Val Gly Pro Ser Ser Val Val Cys Leu Pro Asn Gly Thr Trp Thr
  115          120          125
Gly Glu Gln Pro His Cys Arg Gly Ile Ser Glu Cys Ser Ser Gln Pro
  130          135          140

```

Cys Gln Asn Gly Gly Thr Cys Val Glu Gly Val Asn Gln Tyr Arg Cys  
 145 150 155 160  
 Ile Cys Pro Pro Gly Arg Thr Gly Asn Arg Cys Gln His Gln Ala Gln  
 165 170 175  
 Thr Ala Ala Pro Glu Gly Ser Val Ala Gly Asp Ser Ala Phe Ser Arg  
 180 185 190  
 Ala Pro Arg Cys Ala Gln Val Glu Arg Ala Gln His Cys Ser Cys Glu  
 195 200 205  
 Ala Gly Phe His Leu Ser Gly Ala Ala Gly Asp Ser Val Cys Gln Asp  
 210 215 220  
 Val Asn Glu Cys Glu Leu Tyr Gly Gln Glu Gly Arg Pro Arg Leu Cys  
 225 230 235 240  
 Met His Ala Cys Val Asn Thr Pro Gly Ser Tyr Arg Cys Thr Cys Pro  
 245 250 255  
 Gly Gly Tyr Arg Thr Leu Ala Asp Gly Lys Ser Cys Glu Asp Val Asp  
 260 265 270  
 Glu Cys Val Gly Leu Gln Pro Val Cys Pro Gln Gly Thr Thr Cys Ile  
 275 280 285  
 Asn Thr Gly Gly Ser Phe Gln Cys Val Ser Pro Glu Cys Pro Glu Gly  
 290 295 300  
 Ser Gly Asn Val Ser Tyr Val Lys Thr Ser Pro Phe Gln Cys Glu Arg  
 305 310 315 320  
 Asn Pro Cys Pro Met Asp Ser Arg Pro Cys Arg His Leu Pro Lys Thr  
 325 330 335  
 Ile Ser Phe His Tyr Leu Ser Leu Pro Ser Asn Leu Lys Thr Pro Ile  
 340 345 350  
 Thr Leu Phe Arg Met Ala Thr Ala Ser Ala Pro Gly Arg Ala Gly Pro  
 355 360 365  
 Asn Ser Leu Arg Phe Gly Ile Val Gly Gly Asn Ser Arg Gly His Phe  
 370 375 380  
 Val Met Gln Arg Ser Asp Arg Gln Thr Gly Asp Leu Ile Leu Val Gln  
 385 390 395 400  
 Asn Leu Glu Gly Pro Gln Thr Leu Glu Val Asp Val Asp Met Ser Glu  
 405 410 415  
 Tyr Leu Asp Arg Ser Phe Gln Ala Asn His Val Ser Lys Val Thr Ile  
 420 425 430  
 Phe Val Ser Pro Tyr Asp Phe  
 435

<210> 629  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 629  
 Trp Asn Pro Ile Ser Met Lys Asn Lys Leu Lys Ile Leu Lys Ile Lys  
 1 5 10 15  
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Gly Arg Pro  
 20 25 30

<210> 630  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 630  
 Pro Ala Pro Leu Pro Leu Arg Trp Ser Pro Ala Gly Pro Gly Gln  
 1 5 10 15

<210> 631  
 <211> 44  
 <212> PRT  
 <213> Homo sapiens

<400> 631  
 Met Ala Pro Ala Cys Gln Ile Leu Arg Trp Ala Leu Ala Leu Gly Leu  
 1 5 10 15

Gly Leu Met Phe Glu Val Thr His Ala Phe Arg Ser Gln Gly Arg Gly  
 20 25 30

Ser Leu Val Val Ala Val Gly Arg Glu Arg Lys Met  
 35 40

<210> 632  
 <211> 44  
 <212> PRT  
 <213> Homo sapiens

<400> 632  
 Met Ala Pro Ala Cys Gln Ile Leu Arg Trp Ala Leu Ala Leu Gly Leu  
 1 5 10 15

Gly Leu Met Phe Glu Val Thr His Ala Phe Arg Ser Gln Gly Arg Gly  
 20 25 30

Ser Leu Val Val Ala Val Gly Arg Glu Arg Lys Met  
 35 40



<210> 633  
<211> 42  
<212> PRT  
<213> Homo sapiens

<400> 633  
Met Phe Lys Lys Asp Leu Ile Cys Lys Arg Trp Ser Phe Phe Phe Trp  
1 5 10 15  
Gly Leu Leu Ile Ser Val Val Ile Leu Thr Ser Phe Ser Asn Tyr Ser  
20 25 30  
Arg Arg Phe Tyr Leu Asp Leu Tyr Phe Ser  
35 40

<210> 634  
<211> 7  
<212> PRT  
<213> Homo sapiens

<400> 634  
Phe Ile Gly Phe Ile Leu Cys  
1 5

<210> 635  
<211> 42  
<212> PRT  
<213> Homo sapiens

<400> 635  
Met Phe Lys Lys Asp Leu Ile Cys Lys Arg Trp Ser Phe Phe Phe Trp  
1 5 10 15  
Gly Leu Leu Ile Ser Val Val Ile Leu Thr Ser Phe Ser Asn Tyr Ser  
20 25 30  
Arg Arg Phe Tyr Leu Asp Leu Tyr Phe Ser  
35 40

<210> 636  
<211> 93  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 636

Trp Phe Gln Thr Val Asp Arg His Cys Phe Val Leu Xaa Thr Asp Lys  
1 5 10 15

Val Lys Leu Thr Trp Arg Asp Arg Phe Pro Ala Tyr Leu Thr Asn Leu  
20 25 30

Val Ser Ile Ile Phe Met Xaa Ser Ser Arg Arg Leu Arg Pro Asp Glu  
35 40 45

Val Arg Gly Asn Arg Lys Glu Val Ile Gly Phe Ser Arg Ala Trp Trp  
50 55 60

Phe Thr Thr Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly Arg Ser  
65 70 75 80

Leu Glu Val Arg Ser Ser Arg Pro Ala Trp Pro Ile Trp  
85 90

<210> 637

<211> 35

<212> PRT

<213> Homo sapiens

<400> 637

Met Ser Leu Gly Phe Trp Val Trp Leu Pro Ser Cys Cys His Lys Met  
1 5 10 15

Leu Val Val Thr Cys Thr Phe Gly His Tyr Leu Pro Leu Glu Ser Ser  
20 25 30

His His Leu  
35

<210> 638

<211> 35

<212> PRT

<213> Homo sapiens

<400> 638

Met Ser Leu Gly Phe Trp Val Trp Leu Pro Ser Cys Cys His Lys Met  
1 5 10 15

Leu Val Val Thr Cys Thr Phe Gly His Tyr Leu Pro Leu Glu Ser Ser  
20 25 30

His His Leu  
35

<210> 639

<211> 394

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 639

Val Thr Thr Leu Phe Leu Gly Pro Cys Tyr Cys Arg Gly Arg Leu His  
 1 5 10 15

Gly Leu Arg Gln Glu Ser Arg Leu Gly Asp Arg Ser Leu Val Ile Gly  
 20 25 30

Ala Gly Ala Cys Tyr Cys Ile Tyr Arg Leu Thr Arg Gly Arg Lys Gln  
 35 40 45

Asn Lys Glu Lys Met Ala Glu Gly Gly Ser Gly Asp Val Asp Asp Ala  
 50 55 60

Gly Asp Cys Ser Gly Ala Arg Tyr Asn Asp Trp Ser Asp Asp Asp Asp  
 65 70 75 80

Asp Ser Asn Glu Ser Lys Ser Ile Val Trp Tyr Pro Pro Trp Ala Arg  
 85 90 95

Ile Gly Thr Glu Ala Gly Thr Arg Ala Arg Ala Arg Ala Arg Ala Arg  
 100 105 110

Ala Thr Arg Ala Arg Arg Ala Val Gln Lys Arg Ala Ser Pro Asn Ser  
 115 120 125

Asp Asp Thr Val Leu Ser Pro Gln Glu Leu Gln Lys Val Leu Cys Leu  
 130 135 140

Val Glu Met Ser Glu Lys Pro Tyr Ile Leu Glu Ala Ala Leu Ile Ala  
 145 150 155 160

Leu Gly Asn Asn Ala Ala Tyr Ala Phe Asn Arg Asp Ile Ile Arg Asp  
 165 170 175

Leu Gly Gly Leu Pro Ile Val Ala Lys Ile Leu Asn Thr Arg Asp Pro  
 180 185 190

Ile Val Lys Glu Lys Ala Leu Ile Val Leu Asn Asn Leu Ser Val Asn  
 195 200 205

Ala Glu Asn Gln Arg Arg Leu Lys Val Tyr Met Asn Gln Val Cys Asp  
 210 215 220

Asp Thr Ile Thr Ser Arg Leu Asn Ser Ser Val Gln Leu Ala Gly Leu  
 225 230 235 240

Arg Leu Leu Thr Asn Met Thr Val Thr Asn Glu Tyr Gln His Met Leu  
 245 250 255

Ala Asn Ser Ile Ser Asp Phe Phe Arg Leu Phe Ser Ala Gly Asn Glu  
 260 265 270

Glu Thr Lys Leu Gln Val Leu Lys Leu Leu Leu Asn Leu Ala Glu Asn  
 275 280 285

Pro Ala Met Thr Arg Glu Leu Leu Arg Ala Gln Val Pro Ser Ser Leu  
 290 295 300

Gly Ser Leu Phe Asn Lys Lys Glu Asn Lys Glu Val Ile Leu Lys Leu  
 305 310 315 320  
 Leu Val Ile Phe Glu Asn Ile Asn Asp Asn Phe Lys Trp Glu Glu Asn  
 325 330 335  
 Glu Pro Thr Gln Asn Gln Phe Gly Glu Gly Ser Leu Phe Phe Phe Leu  
 340 345 350  
 Lys Glu Phe Gln Val Cys Ala Asp Lys Val Leu Gly Ile Glu Ser His  
 355 360 365  
 His Asp Phe Leu Val Lys Val Lys Val Gly Lys Phe Met Ala Lys Leu  
 370 375 380  
 Ala Glu His Met Phe Pro Lys Ser Gln Glu  
 385 390

<210> 640  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<400> 640  
 Met Ser Pro Arg Pro Leu Ile Ala Arg Cys Glu Ala Leu Gly Cys Gly  
 1 5 10 15  
 Ala Arg Arg Leu Pro Trp Trp Ala Leu Ala Met Ala Leu Cys Ala Cys  
 20 25 30  
 Gly Arg Cys Val Ala Ala Asn Ser Ile Gly Glu Thr Leu Pro Ser Glu  
 35 40 45  
 Val

<210> 641  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

<400> 641  
 Met Ser Pro Arg Pro Leu Ile Ala Arg Cys Glu Ala Leu Gly Cys Gly  
 1 5 10 15  
 Ala Arg Arg Leu Pro Trp Trp Ala Leu Ala Met Ala Leu Cys Ala Cys  
 20 25 30  
 Gly Arg Cys Val Ala Ala Asn Ser Ile Gly Glu Thr Leu Pro Ser Glu  
 35 40 45  
 Val

<210> 642  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 642  
 Pro Ser Val Ala Leu Cys Trp Ile Phe Phe Ile Pro Leu Gly Lys Trp  
           1                  5                  10                  15  
 Glu Phe Phe Tyr Arg Pro Ala Ile Leu Leu Leu Cys Gln Ile Ala Leu  
                   20                  25                  30  
 Tyr Tyr Gln Asp Thr Pro Met Ala His Phe Arg Leu Thr Glu Leu Phe  
           35                  40                  45  
 Leu Tyr Glu Cys Thr Val Val Ile Phe Trp Ala Val Cys Glu Phe Leu  
           50                  55                  60  
 Val Thr His Pro Leu Thr Thr Lys Ala Leu Ser Glu Gln Tyr Lys Ser  
           65                  70                  75                  80  
 Ile Lys Ala Gln Ile  
                   85

<210> 643  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (33)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 643  
 Met Val Gly Leu Pro Ala Val Xaa Gln Leu Phe Trp Gly Leu Cys Leu  
           1                  5                  10                  15  
 Cys Thr Cys Gly Leu Tyr Pro Ala Pro Gln Ser Trp Leu Ser Ser Gly  
                   20                  25                  30  
 Xaa Tyr Lys Val Thr Ser Gly Ala Pro Ser Glu Arg Met Trp Pro Gln  
           35                  40                  45  
 Arg His Ala Ser Gly Phe Arg Leu Ser Gly Arg Thr Cys Leu Arg Ala  
           50                  55                  60  
 Thr Ala Pro Ser Pro Ser Phe Pro Phe Phe Ser Ala Val Ile Asn Leu  
           65                  70                  75                  80  
 Ser Ala Cys Ser Lys  
                   85

&lt;210&gt; 644

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 644

Met Val Gly Leu Pro Ala Val Val Gln Leu Phe Trp Gly Leu Cys Leu  
 1 5 10 15

Cys Thr Cys Gly Ala Val Ser Cys Pro Thr Glu Leu Ala Val Gln Trp  
 20 25 30

Arg Ile Gln Ser Asp Ile Trp Cys Ser Leu Arg Lys Asn Val Ala Pro  
 35 40 45

Glu Ala Cys Gln Trp Leu  
 50

&lt;210&gt; 645

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (76)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 645

Met Ile Leu Gly Ile His Trp Gly Ile Phe Leu Leu Leu Leu Ser  
 1 5 10 15

Trp Leu Glu Leu Gln Arg Thr Val Ile Phe Phe Phe Ser Pro Phe Pro  
 20 25 30

Ile Gln Lys His Tyr Thr Leu Gly His Phe Ser Phe Ser Gln Arg Arg  
 35 40 45

Phe Met Asp Ser Gln Thr Glu Leu Cys Ala Thr Gly Lys Val Lys Arg  
 50 55 60

Glu Lys Xaa Ala Asp Glu Val Thr Trp Leu His Xaa Leu His His Ala  
 65 70 75 80

Xaa

<210> 646  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 646  
 Ile Phe Leu Leu Leu Leu Leu Ser Trp Leu Glu Leu Gln Arg Thr Val  
 1 5 10 15  
 Ile Phe Phe Phe Ser Pro Phe Pro Ile Gln Lys His Tyr Thr Leu Gly  
 20 25 30  
 His Phe Ser Phe Ser Gln Arg Arg Phe Met Asp Ser Gln Thr Glu Leu  
 35 40 45  
 Cys Ala Thr Gly Lys Val Lys Arg Glu Lys Ala Ala Asp Glu Val Thr  
 50 55 60  
 Trp Leu His Val Leu His His Ala Glu  
 65 70

<210> 647  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<400> 647  
 Trp Gly Leu Leu Tyr Leu Glu Leu Asn  
 1 5

<210> 648  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 648  
 Met Ile Leu Gly Ile His Trp Gly Ile Phe Leu Leu Leu Leu Ser  
 1 5 10 15  
 Trp Leu Glu Leu Gln Arg Thr Val Ile Phe Phe Phe Ser Pro Phe Pro  
 20 25 30  
 Ile Gln Lys His Tyr Thr Leu Gly His Phe Ser Phe Ser Gln Arg Arg  
 35 40 45  
 Phe Met Asp Ser Gln Thr Glu Leu Cys Ala Thr Gly Lys Val Lys Arg  
 50 55 60  
 Glu Lys Ala Ala Asp Glu Val Thr Trp Leu His Val Leu His His Ala  
 65 70 75 80  
 Glu

<210> 649  
 <211> 870  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (534)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 649

Met	Gly	Pro	Pro	Ser	Leu	Val	Leu	Cys	Leu	Leu	Ser	Ala	Thr	Val	Phe	1		5		10			15
Ser	Leu	Leu	Gly	Gly	Ser	Ser	Ala	Phe	Leu	Ser	His	His	Arg	Leu	Lys		20		25			30	
Gly	Arg	Phe	Gln	Arg	Asp	Arg	Arg	Asn	Ile	Arg	Pro	Asn	Ile	Ile	Leu		35		40			45	
Val	Leu	Thr	Asp	Asp	Gln	Asp	Val	Glu	Leu	Gly	Ser	Met	Gln	Val	Met	50		55			60		
Asn	Lys	Thr	Arg	Arg	Ile	Met	Glu	Gln	Gly	Gly	Ala	His	Phe	Ile	Asn	65		70			75		80
Ala	Phe	Val	Thr	Thr	Pro	Met	Cys	Cys	Pro	Ser	Arg	Ser	Ser	Ile	Leu		85		90			95	
Thr	Gly	Lys	Tyr	Val	His	Asn	His	Asn	Thr	Tyr	Thr	Asn	Asn	Glu	Asn		100		105			110	
Cys	Ser	Ser	Pro	Ser	Trp	Gln	Ala	Gln	His	Glu	Ser	Arg	Thr	Phe	Ala		115		120			125	
Val	Tyr	Leu	Asn	Ser	Thr	Gly	Tyr	Arg	Thr	Ala	Phe	Phe	Gly	Lys	Tyr	130		135			140		
Leu	Asn	Glu	Tyr	Asn	Gly	Ser	Tyr	Val	Pro	Pro	Gly	Trp	Lys	Glu	Trp	145		150		155			160
Val	Gly	Leu	Leu	Lys	Asn	Ser	Arg	Phe	Tyr	Asn	Tyr	Thr	Leu	Cys	Arg		165		170			175	
Asn	Gly	Val	Lys	Glu	Lys	His	Gly	Ser	Asp	Tyr	Ser	Lys	Asp	Tyr	Leu		180		185			190	
Thr	Asp	Leu	Ile	Thr	Asn	Asp	Ser	Val	Ser	Phe	Phe	Arg	Thr	Ser	Lys		195		200			205	
Lys	Met	Tyr	Pro	His	Arg	Pro	Val	Leu	Met	Val	Ile	Ser	His	Ala	Ala	210		215			220		
Pro	His	Gly	Pro	Glu	Asp	Ser	Ala	Pro	Gln	Tyr	Ser	Arg	Leu	Phe	Pro	225		230		235			240
Asn	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	Pro								



				245						250						255
Asp	Lys	His	Trp 260	Ile	Met	Arg	Tyr	Thr 265	Gly	Pro	Met	Lys	Pro 270	Ile	His	
Met	Glu	Phe 275	Thr	Asn	Met	Leu	Gln 280	Arg	Lys	Arg	Leu	Gln 285	Thr	Leu	Met	
Ser	Val 290	Asp	Asp	Ser	Met	Glu 295	Thr	Ile	Tyr	Asn	Met 300	Leu	Val	Glu	Thr	
Gly 305	Glu	Leu	Asp	Asn 310	Thr	Tyr	Ile	Val	Tyr	Thr 315	Ala	Asp	His	Gly	Tyr 320	
His	Ile	Gly	Gln	Phe 325	Gly	Leu	Val	Lys 330	Gly	Lys	Ser	Met	Pro	Tyr 335	Glu	
Phe	Asp	Ile	Arg 340	Val	Pro	Phe	Tyr	Val 345	Arg	Gly	Pro	Asn	Val 350	Glu	Ala	
Gly	Cys 355	Leu	Asn	Pro	His	Ile 360	Val	Leu	Asn	Ile	Asp	Leu 365	Ala	Pro	Thr	
Ile	Leu 370	Asp	Ile	Ala	Gly	Leu 375	Asp	Ile	Pro	Ala	Asp 380	Met	Asp	Gly	Lys	
Ser 385	Ile	Leu	Lys	Leu	Leu 390	Asp	Thr	Glu	Arg	Pro 395	Val	Asn	Arg	Phe	His 400	
Leu	Lys	Lys	Lys 405	Met	Arg	Val	Trp	Arg	Asp 410	Ser	Phe	Leu	Val	Glu	Arg 415	
Gly	Lys	Leu	Leu 420	His	Lys	Arg	Asp	Asn 425	Asp	Lys	Val	Asp	Ala 430	Gln	Glu	
Glu	Asn 435	Phe	Leu	Pro	Lys	Tyr	Gln 440	Arg	Val	Lys	Asp 445	Leu	Cys	Gln	Arg	
Ala 450	Glu	Tyr	Gln	Thr	Ala	Cys 455	Glu	Gln	Leu	Gly	Gln 460	Lys	Trp	Gln	Cys	
Val 465	Glu	Asp	Ala	Thr	Gly 470	Lys	Leu	Lys	Leu	His 475	Lys	Cys	Lys	Gly	Pro 480	
Met	Arg	Leu	Gly 485	Gly	Ser	Arg	Ala	Leu	Ser 490	Asn	Leu	Val	Pro	Lys 495	Tyr	
Tyr	Gly	Gln	Gly 500	Ser	Glu	Ala	Cys 505	Thr	Cys	Asp	Ser	Gly	Asp 510	Tyr	Lys	
Leu	Ser 515	Leu	Ala	Gly	Arg	Arg	Lys 520	Lys	Leu	Phe	Lys 525	Lys	Lys	Tyr	Lys	
Ala 530	Ser	Tyr	Val	Arg	Xaa 535	Arg	Ser	Ile	Arg	Ser	Val 540	Ala	Ile	Glu	Val	
Asp 545	Gly	Arg	Val	Tyr	His 550	Val	Gly	Leu	Gly	Asp 555	Ala	Ala	Gln	Pro	Arg 560	
Asn	Leu	Thr	Lys	Arg	His	Trp	Pro	Gly	Ala	Pro	Glu	Asp	Gln	Asp	Asp	

332

&lt;210&gt; 650

&lt;211&gt; 870

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 650

Met Gly Pro Pro Ser Leu Val Leu Cys Leu Leu Ser Ala Thr Val Phe

1 5 10 15

Ser Leu Leu Gly Gly Ser Ser Ala Phe Leu Ser His His Arg Leu Lys

20 25 30

Gly Arg Phe Gln Arg Asp Arg Arg Asn Ile Arg Pro Asn Ile Ile Leu

35 40 45

Val Leu Thr Asp Asp Gln Asp Val Glu Leu Gly Ser Met Gln Val Met

50 55 60

Asn Lys Thr Arg Arg Ile Met Glu Gln Gly Gly Ala His Phe Ile Asn

65 70 75 80

Ala Phe Val Thr Thr Pro Met Cys Cys Pro Ser Arg Ser Ser Ile Leu

85 90 95

Thr Gly Lys Tyr Val His Asn His Asn Thr Tyr Thr Asn Asn Glu Asn

100 105 110

Cys Ser Ser Pro Ser Trp Gln Ala Gln His Glu Ser Arg Thr Phe Ala

115 120 125

Val Tyr Leu Asn Ser Thr Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr

130 135 140

Leu Asn Glu Tyr Asn Gly Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp

145 150 155 160

Val Gly Leu Leu Lys Asn Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg

165 170 175

Asn Gly Val Lys Glu Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu

180 185 190

Thr Asp Leu Ile Thr Asn Asp Ser Val Ser Phe Phe Arg Thr Ser Lys

195 200 205

Lys Met Tyr Pro His Arg Pro Val Leu Met Val Ile Ser His Ala Ala

210 215 220

Pro His Gly Pro Glu Asp Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro

225 230 235 240

Asn Ala Ser Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn Pro

245 250 255

Asp Lys His Trp Ile Met Arg Tyr Thr Gly Pro Met Lys Pro Ile His

260 265 270

Met Glu Phe Thr Asn Met Leu Gln Arg Lys Arg Leu Gln Thr Leu Met

275 280 285

Ser Val Asp Asp Ser Met. Glu Thr Ile Tyr Asn Met Leu Val Glu Thr  
 290 295 300  
 Gly Glu Leu Asp Asn Thr Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr  
 305 310 315 320  
 His Ile Gly Gln Phe Gly Leu Val Lys Gly Lys Ser Met Pro Tyr Glu  
 325 330 335  
 Phe Asp Ile Arg Val Pro Phe Tyr Val Arg Gly Pro Asn Val Glu Ala  
 340 345 350  
 Gly Cys Leu Asn Pro His Ile Val Leu Asn Ile Asp Leu Ala Pro Thr  
 355 360 365  
 Ile Leu Asp Ile Ala Gly Leu Asp Ile Pro Ala Asp Met Asp Gly Lys  
 370 375 380  
 Ser Ile Leu Lys Leu Leu Asp Thr Glu Arg Pro Val Asn Arg Phe His  
 385 390 395 400  
 Leu Lys Lys Lys Met Arg Val Trp Arg Asp Ser Phe Leu Val Glu Arg  
 405 410 415  
 Gly Lys Leu Leu His Lys Arg Asp Asn Asp Lys Val Asp Ala Gln Glu  
 420 425 430  
 Glu Asn Phe Leu Pro Lys Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg  
 435 440 445  
 Ala Glu Tyr Gln Thr Ala Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys  
 450 455 460  
 Val Glu Asp Ala Thr Gly Lys Leu Lys Leu His Lys Cys Lys Gly Pro  
 465 470 475 480  
 Met Arg Leu Gly Gly Ser Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr  
 485 490 495  
 Tyr Gly Gln Gly Ser Glu Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys  
 500 505 510  
 Leu Ser Leu Ala Gly Arg Arg Lys Lys Leu Phe Lys Lys Lys Tyr Lys  
 515 520 525  
 Ala Ser Tyr Val Arg Ser Arg Ser Ile Arg Ser Val Ala Ile Glu Val  
 530 535 540  
 Asp Gly Arg Val Tyr His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg  
 545 550 555 560  
 Asn Leu Thr Lys Arg His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp  
 565 570 575  
 Lys Asp Gly Gly Asp Phe Ser Gly Thr Gly Gly Leu Pro Asp Tyr Ser  
 580 585 590  
 Ala Ala Asn Pro Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn  
 595 600 605

Asp Thr Val Gln Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp  
 610 615 620  
 Lys Asp His Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn  
 625 630 635 640  
 Lys Ile Lys Asn Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg  
 645 650 655  
 Pro Glu Glu Cys Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys  
 660 665 670  
 Gly Arg Leu Lys His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly  
 675 680 685  
 Leu Gln Glu Lys Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys  
 690 695 700  
 Lys Lys Leu Arg Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys  
 705 710 715 720  
 Ser Met Pro Gly Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln  
 725 730 735  
 Thr Ala Pro Phe Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala  
 740 745 750  
 Asn Asn Asn Thr Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn  
 755 760 765  
 Phe Leu Phe Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu  
 770 775 780  
 Asn Thr Asp Pro Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg  
 785 790 795 800  
 Asp Val Leu Asn Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys  
 805 810 815  
 Lys Gly Tyr Lys Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly  
 820 825 830  
 Leu Lys Asp Gly Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg  
 835 840 845  
 Lys Trp Pro Glu Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu  
 850 855 860  
 Trp Glu Gly Trp Glu Gly  
 865 870

&lt;210&gt; 651

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 651

Met Met Pro Leu Leu Ser Leu Ile Phe Ser Ala Leu Phe Ile Leu Phe  
 1 5 10 15  
 Gly Thr Val Ile Val Gln Ala Phe Ser Asp Ser Asn Asp Glu Arg Glu  
 20 25 30  
 Ser Ser Pro Pro Glu Lys Glu Glu Ala Gln Glu Lys Thr Gly Lys Thr  
 35 40 45  
 Glu Pro Ser Phe Thr Lys Glu Asn Ser Ser Lys Ile Pro Lys Lys Gly  
 50 55 60  
 Phe Val Glu Val Thr Glu Leu Thr Asp Val Thr Tyr Thr Ser Asn Leu  
 65 70 75 80  
 Val Arg Leu Arg Pro Gly His Met Asn Val Val Leu Ile Leu Ser Asn  
 85 90 95  
 Ser Thr Lys Thr Ser Leu Leu Gln Lys Phe Ala Leu Glu Val Tyr Thr  
 100 105 110  
 Phe Thr Gly Ser Ser Cys Leu His Phe Ser Phe Leu Ser Leu Asp Lys  
 115 120 125  
 His Arg Glu Trp Leu Glu Tyr Leu Leu Glu Phe Ala Gln Asp Ala Ala  
 130 135 140  
 Pro Ile Pro Asn Gln Tyr Asp Lys His Phe Met Glu Arg Asp Tyr Thr  
 145 150 155 160  
 Gly Tyr Val Leu Ala Leu Asn Gly His Lys Lys Tyr Phe Cys Leu Phe  
 165 170 175  
 Lys Pro Gln Lys Thr Val Glu Glu Glu Glu Ala Ile Gly Ser Cys Ser  
 180 185 190  
 Asp Val Asp Ser Ser Leu Tyr Leu Gly Glu Ser Arg  
 195 200

&lt;210&gt; 652

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (204)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (283)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (305)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 652

Met Glu Val Arg Lys Leu Ser Ile Ser Trp Gln Phe Leu Ile Val Leu  
 1 5 10 15

Val Leu Ile Leu Gln Ile Leu Ser Ala Leu Asp Phe Asp Pro Tyr Arg  
 20 25 30

Val Leu Gly Val Ser Arg Thr Ala Ser Gln Ala Asp Ile Lys Lys Ala  
 35 40 45

Tyr Lys Lys Leu Ala Arg Glu Trp His Pro Asp Lys Asn Lys Asp Pro  
 50 55 60

Gly Ala Glu Asp Lys Phe Ile Gln Ile Ser Lys Ala Tyr Glu Ile Leu  
 65 70 75 80

Ser Asn Glu Glu Lys Arg Ser Asn Tyr Asp Gln Tyr Gly Asp Ala Gly  
 85 90 95

Glu Asn Gln Gly Tyr Gln Lys Gln Gln Gln Arg Glu Tyr Arg Phe  
 100 105 110

Arg His Phe His Glu Asn Phe Tyr Phe Asp Glu Ser Phe Phe His Phe  
 115 120 125

Pro Phe Asn Ser Glu Arg Arg Asp Ser Ile Asp Glu Lys Tyr Leu Leu  
 130 135 140

His Phe Ser His Tyr Val Asn Glu Val Val Pro Asp Ser Phe Lys Lys  
 145 150 155 160

Pro Tyr Leu Ile Lys Ile Thr Ser Asp Trp Cys Phe Ser Cys Ile His  
 165 170 175

Ile Glu Pro Val Trp Lys Glu Val Ile Gln Glu Leu Glu Glu Leu Gly  
 180 185 190

Val Gly Ile Gly Val Val His Ala Gly Tyr Glu Xaa Arg Leu Ala His  
 195 200 205

His Leu Gly Ala His Ser Thr Pro Ser Ile Leu Gly Ile Ile Asn Gly  
 210 215 220

Lys Ile Ser Phe Phe His Asn Ala Val Val Arg Glu Asn Leu Arg Gln  
 225 230 235 240

Phe Val Glu Ser Leu Leu Pro Gly Asn Leu Val Glu Lys Val Thr Asn  
 245 250 255

Lys Asn Tyr Val Arg Phe Leu Ser Gly Trp Gln Gln Glu Asn Lys Pro  
 260 265 270

His Val Leu Leu Phe Asp Gln Thr Pro Ile Xaa Pro Leu Leu Tyr Lys  
 275 280 285

Leu Thr Ala Phe Ala Tyr Lys Asp Tyr Leu Ser Phe Gly Tyr Val Tyr  
 290 295 300

Xaa Gly Leu Arg Gly Thr Glu Glu Met Thr Arg Arg Tyr Asn Ile Asn

305

310

315

320

Ile Tyr Ala Pro Thr Leu Leu Ala Leu Lys Asn Ile  
 325 330

&lt;210&gt; 653

&lt;211&gt; 737

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 653

Met Glu Val Arg Lys Leu Ser Ile Ser Trp Gln Phe Leu Ile Val Leu  
 1 5 10 15

Val Leu Ile Leu Gln Ile Leu Ser Ala Leu Asp Phe Asp Pro Tyr Arg  
 20 25 30

Val Leu Gly Val Ser Arg Thr Ala Ser Gln Ala Asp Ile Lys Lys Ala  
 35 40 45

Tyr Lys Lys Leu Ala Arg Glu Trp His Pro Asp Lys Asn Lys Asp Pro  
 50 55 60

Gly Ala Glu Asp Lys Phe Ile Gln Ile Ser Lys Ala Tyr Glu Ile Leu  
 65 70 75 80

Ser Asn Glu Glu Lys Arg Ser Asn Tyr Asp Gln Tyr Gly Asp Ala Gly  
 85 90 95

Glu Asn Gln Gly Tyr Gln Lys Gln Gln Gln Arg Glu Tyr Arg Phe  
 100 105 110

Arg His Phe His Glu Asn Phe Tyr Phe Asp Glu Ser Phe Phe His Phe  
 115 120 125

Pro Phe Asn Ser Glu Arg Arg Asp Ser Ile Asp Glu Lys Tyr Leu Leu  
 130 135 140

His Phe Ser His Tyr Val Asn Glu Val Val Pro Asp Ser Phe Lys Lys  
 145 150 155 160

Pro Tyr Leu Ile Lys Ile Thr Ser Asp Trp Cys Phe Ser Cys Ile His  
 165 170 175

Ile Glu Pro Val Trp Lys Glu Val Ile Gln Glu Leu Glu Glu Leu Gly  
 180 185 190

Val Gly Ile Gly Val Val His Ala Gly Tyr Glu Arg Arg Leu Ala His  
 195 200 205

His Leu Gly Ala His Ser Thr Pro Ser Ile Leu Gly Ile Ile Asn Gly  
 210 215 220

Lys Ile Ser Phe Phe His Asn Ala Val Val Arg Glu Asn Leu Arg Gln  
 225 230 235 240

Phe Val Glu Ser Leu Leu Pro Gly Asn Leu Val Glu Lys Val Thr Asn  
 245 250 255



Lys Asn Tyr Val Arg Phe Leu Ser Gly Trp Gln Gln Glu Asn Lys Pro  
 260 265 270  
 His Val Leu Leu Phe Asp Gln Thr Pro Ile Val Pro Leu Leu Tyr Lys  
 275 280 285  
 Leu Thr Ala Phe Ala Tyr Lys Asp Tyr Leu Ser Phe Gly Tyr Val Tyr  
 290 295 300  
 Val Gly Leu Arg Gly Thr Glu Glu Met Thr Arg Arg Tyr Asn Ile Asn  
 305 310 315 320  
 Ile Tyr Ala Pro Thr Leu Leu Val Phe Lys Glu His Ile Asn Arg Pro  
 325 330 335  
 Ala Asp Val Ile Gln Ala Arg Gly Met Lys Lys Gln Ile Ile Asp Asp  
 340 345 350  
 Phe Ile Thr Arg Asn Lys Tyr Leu Leu Ala Ala Arg Leu Thr Ser Gln  
 355 360 365  
 Lys Leu Phe His Glu Leu Cys Pro Val Lys Arg Ser His Arg Gln Arg  
 370 375 380  
 Lys Tyr Cys Val Val Leu Leu Thr Ala Glu Thr Thr Lys Leu Ser Lys  
 385 390 395 400  
 Pro Phe Glu Ala Phe Leu Ser Phe Ala Leu Ala Asn Thr Gln Asp Thr  
 405 410 415  
 Val Arg Phe Val His Val Tyr Ser Asn Arg Gln Gln Glu Phe Ala Asp  
 420 425 430  
 Thr Leu Leu Pro Asp Ser Glu Ala Phe Gln Gly Lys Ser Ala Val Ser  
 435 440 445  
 Ile Leu Glu Arg Arg Asn Thr Ala Gly Arg Val Val Tyr Lys Thr Leu  
 450 455 460  
 Glu Asp Pro Trp Ile Gly Ser Glu Ser Asp Lys Phe Ile Leu Leu Gly  
 465 470 475 480  
 Tyr Leu Asp Gln Leu Arg Lys Asp Pro Ala Leu Leu Ser Ser Glu Ala  
 485 490 495  
 Val Leu Pro Asp Leu Thr Asp Glu Leu Ala Pro Val Phe Leu Leu Arg  
 500 505 510  
 Trp Phe Tyr Ser Ala Ser Asp Tyr Ile Ser Asp Cys Trp Asp Ser Ile  
 515 520 525  
 Phe His Asn Asn Trp Arg Glu Met Met Pro Leu Leu Ser Leu Ile Phe  
 530 535 540  
 Ser Ala Leu Phe Ile Leu Phe Gly Thr Val Ile Val Gln Ala Phe Ser  
 545 550 555 560  
 Asp Ser Asn Asp Glu Arg Glu Ser Ser Pro Pro Glu Lys Glu Glu Ala  
 565 570 575

Gln Glu Lys Thr Gly Lys Thr Glu Pro Ser Phe Thr Lys Glu Asn Ser  
 580 585 590  
 Ser Lys Ile Pro Lys Lys Gly Phe Val Glu Val Thr Glu Leu Thr Asp  
 595 600 605  
 Val Thr Tyr Thr Ser Asn Leu Val Arg Leu Arg Pro Gly His Met Asn  
 610 615 620  
 Val Val Leu Ile Leu Ser Asn Ser Thr Lys Thr Ser Leu Leu Gln Lys  
 625 630 635 640  
 Phe Ala Leu Glu Val Tyr Thr Phe Thr Gly Ser Ser Cys Leu His Phe  
 645 650 655  
 Ser Phe Leu Ser Leu Asp Lys His Arg Glu Trp Leu Glu Tyr Leu Leu  
 660 665 670  
 Glu Phe Ala Gln Asp Ala Ala Pro Ile Pro Asn Gln Tyr Asp Lys His  
 675 680 685  
 Phe Met Glu Arg Asp Tyr Thr Gly Tyr Val Leu Ala Leu Asn Gly His  
 690 695 700  
 Lys Lys Tyr Phe Cys Leu Phe Lys Pro Gln Lys Thr Val Glu Glu Glu  
 705 710 715 720  
 Glu Ala Ile Gly Ser Cys Ser Asp Val Asp Ser Ser Leu Tyr Leu Gly  
 725 730 735  
 Glu

<210> 654  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Met Asn Ser Ser Phe Phe Ile Ser Leu Pro Ala Leu Ile Trp Ser Val  
 1 5 10 15  
 Cys Leu Ile Leu Gly Trp Trp Gln Val Ser Ser Gly Lys Val Ala His  
 20 25 30  
 Cys Gly Phe Ile Phe Cys Phe Pro Asn Asn  
 35 40

<210> 655  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 655  
 Cys Gly Ser His Arg Met Ser Trp Lys Met Tyr Cys Pro Leu His Phe  
 340

1	5	10	15
Ser Gly Arg Val Cys Glu Glu Leu Lys Phe Phe Phe Ser Phe Phe Phe	20	25	30
Phe Leu Arg Arg Ser Leu Thr Pro Ala Gln Ala Thr Ala Gly Asp Ser	35	40	45
Val Ser Lys Lys Gln Arg Glu Glu Arg Lys Lys Glu Lys Lys Glu Gly	50	55	60
Arg Arg Lys Glu Gly Arg Asn Glu Gly Thr Lys Glu Gly Arg Lys Arg	65	70	75
Lys Glu Gly Arg Lys Lys Glu Arg Glu Arg Glu Arg Lys Lys Glu Arg	85	90	95
Lys Lys Glu Arg Lys Lys Glu Lys Lys Lys Lys Thr Gly Thr	100	105	110

<210> 656  
 <211> 42  
 <212> PRT  
 <213> Homo sapiens

<400> 656
Met Asn Ser Ser Phe Phe Ile Ser Leu Pro Ala Leu Ile Trp Ser Val
1 5 10 15
Cys Leu Ile Leu Gly Trp Trp Gln Val Ser Ser Gly Lys Val Ala His
20 25 30
Cys Gly Phe Ile Phe Cys Phe Pro Asn Asn
35 40

<210> 657  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 657

Met Pro Val Phe Val Cys Ser Ile Gly Leu Cys Phe Leu Phe Ser Ile  
 1 5 10 15

Leu Leu Leu Phe Pro Pro Phe Gln Phe Ser Tyr Ile Cys Trp Leu Ser  
 20 25 30

Gln Ala Ser Val Tyr Ser Pro Ser Pro Ser Leu Ser Asn Leu Glu Val  
 35 40 45

Leu Leu Cys Leu Ser Ile Leu Leu Met Ile Ile Phe Pro Phe Leu Ile  
 50 55 60

Ser Ile Xaa Xaa Ile Xaa Ser Ile Gly Arg Leu Ser Thr His Met Gly  
 65 70 75 80

Ala His Thr His Thr His Thr His Thr His Thr His Thr His Thr Xaa  
 85 90 95

Val Cys Tyr Trp Pro Leu Leu Leu Ile Ser Gln Glu Asn Glu Pro Phe  
 100 105 110

Arg Met Phe Leu Pro Leu His Ser Ala Leu Thr Gln Asn Phe Cys Ser  
 115 120 125

&lt;210&gt; 658

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 658

Met Pro Val Phe Val Cys Ser Ile Gly Leu Cys Phe Leu Phe Ser Ile  
 1 5 10 15

Leu Leu Leu Phe Pro Pro Phe Gln Phe Ser Tyr Ile Cys Trp Leu Ser  
 20 25 30

Gln Ala Ser Val Tyr Ser Pro Ser Pro Ser Leu Ser Asn Leu Glu Val  
 35 40 45

Leu Leu Cys Leu Ser Ile Leu Leu Met Ile Ile Phe Pro Phe Leu Ile  
 50 55 60

Ser Ile Ile His Ile Phe Ser Ile Gly Arg Leu Ser Thr His Met Gly  
 65 70 75 80

Ala His Thr His Thr His Thr His Thr His Thr His Thr His Thr Gln  
 85 90 95

Val Cys Tyr Trp Pro Leu Leu Leu Ile Ser Gln Glu Asn Glu Pro Phe  
 100 105 110

Arg Met Phe Leu Pro Leu His Ser Ala Leu Thr Gln Asn Phe Cys Ser  
 115 120 125

<210> 659

<211> 24

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 659

Met Ser Trp Arg Val Trp Ala Leu Xaa Phe Phe Pro Ala Val Cys Val  
 1 5 10 15

Cys Xaa Cys Val Cys Val Tyr Thr  
 20

<210> 660

<211> 65

<212> PRT

<213> Homo sapiens

<400> 660

Val Leu Met Arg Ser Asp Gly Phe Ile Arg Gly Phe Ser Pro Phe Cys  
 1 5 10 15

Trp Ala Leu Leu Leu Leu Pro Pro Arg Glu Glu Gly Cys Val Cys Phe  
 20 25 30

Pro Phe Cys His Asp Cys Lys Phe Pro Val Ala Ser Pro Ser Leu Arg  
 35 40 45

Asn Cys Glu Ser Ile Lys Ala Leu Phe Phe Ile Lys Lys Lys Lys Lys  
 50 55 60

Asn  
 65

<210> 661

<211> 38

<212> PRT

<213> Homo sapiens

&lt;400&gt; 661

Met Ser Trp Arg Val Trp Ala Leu Leu Phe Phe Pro Ala Val Cys Val  
 1 5 10 15

Cys Val Cys Val Cys Val Cys Ala Cys Thr Arg Thr Arg Val Cys Asp  
 20 25 30

Glu Thr Ile Lys Leu Val  
 35

&lt;210&gt; 662

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 662

Met Val Glu Ser Pro Val Cys Gly Leu Leu Glu Gly Trp Phe Phe Leu  
 1 5 10 15

Leu Phe Ser Leu Ala Phe Leu Ser Thr His Leu Phe Ser Glu Ala Ser  
 20 25 30

Pro Leu Ser Ile Leu  
 35

&lt;210&gt; 663

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 663

Met Val Glu Ser Pro Val Cys Gly Leu Leu Glu Gly Trp Phe Phe Leu  
 1 5 10 15

Leu Phe Ser Leu Ala Phe Leu Ser Thr His Leu Phe Ser Glu Ala Ser  
 20 25 30

Pro Leu Ser Ile Leu  
 35

&lt;210&gt; 664

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 664

Met Thr Leu Ser Val Leu Gln His Phe Phe Ile Cys Val Leu Leu Ile  
 1 5 10 15

Leu Leu Leu Asp Thr Asn Leu Cys Arg Gln Ile Ser Ser His Ser Phe  
 20 25 30

Glu Phe Ser Gly Asn Gln Pro Leu Val Phe Cys Cys Ile Ser Ser Ile

35

40

45

Ser Ala Lys Leu Val Leu Asp Gln Ala Gly  
 50 55

<210> 665  
 <211> 2  
 <212> PRT  
 <213> Homo sapiens

<400> 665  
 Leu Glu  
 1

<210> 666  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Met Thr Leu Ser Val Leu Gln His Phe Phe Ile Cys Val Leu Leu Ile  
 1 5 10 15

Leu Leu Leu Asp Thr Asn Leu Cys Arg Gln Ile Ser Ser His Ser Phe  
 20 25 30

Glu Phe Ser Gly Asn Gln Pro Leu Val Phe Cys Cys Ile Ser Ser Ile  
 35 40 45

Ser Ala Lys Leu Val Leu Asp Gln Ala Gly  
 50 55

<210> 667  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (104)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

&lt;222&gt; (113)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (121)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 667

Val	Ala	Gln	Val	Gln	Val	Pro	Gly	Gly	His	Ile	Gly	Leu	Gly	Tyr	Leu
1				5					10					15	

Ala	Arg	Ile	Asp	Phe	His	Arg	Arg	Asp	Gly	Thr	Gly	Gly	Ile	Pro	Ala
			20					25					30		

Arg	Ile	Asp	Gly	Gly	Glu	Ile	Asp	Val	Ala	Leu	Leu	Pro	Gly	Gln	Ala
		35					40					45			

Val	Asp	His	Ile	Met	Ala	Arg	Ala	Cys	Gly	Gly	Glu	His	Leu	Ala	Glu
	50					55					60				

Val	Gly	Arg	Gly	Thr	Val	Gln	Gly	Leu	Leu	Gly	Arg	Ala	Val	Leu	Ala
65					70					75				80	

Ala	Gln	Ala	Arg	Arg	Ala	Pro	Pro	Xaa	Gln	Pro	Leu	Pro	Ala	Thr	Met
					85				90					95	

Gly	Phe	Trp	Gly	Trp	Lys	Xaa	Xaa	Pro	Asn	Arg	Gly	Leu	Trp	Phe	Lys
			100					105				110			

Xaa	Trp	Lys	Pro	Pro	Phe	Gly	Ala	Xaa	Gly	Val	Pro
		115					120				

&lt;210&gt; 668

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (174)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (189)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (205)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 668

Met	Lys	Ile	Val	Pro	Leu	Thr	Ala	Ala	Val	Leu	Ala	Leu	Val	Leu	Ala
1				5					10					15	

Pro	Ala	Ala	His	Ala	Gln	Pro	Ala	Asn	Lys	Ala	Thr	Thr	Val	Ser	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



20	25	30
Thr Ala Ala Ala Phe Leu Ala Gln Phe Ala Thr Glu Gly Asn Asp Ser		
35	40	45
Val Ser Trp Ala Gln Phe Glu Ala Phe Arg Lys Gln Arg Tyr Ala Asp		
50	55	60
Thr Asp Arg Asn Gln Asp Gly His Val Asp Glu Gln Glu Tyr Val Asp		
65	70	75
Glu Tyr Leu Gln Arg Phe Asp Val Arg Leu Ala Asp Ala Arg Ala Gly		
85	90	95
His Leu Arg Gln Thr Asp Thr Arg Phe Lys Ala Leu Asp Arg Asp Gly		
100	105	110
Asn Gly Ala Ile Ser Arg Ala Glu Tyr Asp Ala Ala Gly Glu Arg Thr		
115	120	125
Trp Ala Gly Tyr Glu Arg Ser Gln Asn Ala Thr Gln Glu Thr Ala Ala		
130	135	140
Ala Ser Ser Arg Asp Pro Leu Lys Met Pro Thr Ser His Thr Ala Asn		
145	150	155
Gly Met Leu Asp Leu Tyr Asp Arg Asn Lys Asp Gly Ala Xaa Asp Arg		
165	170	175
Glu Glu Phe Asp Ala Val Arg Ala Ala Ser Phe Ala Xaa Thr Asp Thr		
180	185	190
Asp Gly Asn Gly Thr Leu Ser Leu Ala Glu Tyr Thr Xaa Glu Phe Glu		
195	200	205
Gly Arg Leu Asp Gln Gln Arg Gln Arg Val Arg Ala Asp Ala Glu Arg		
210	215	220
Gln Ala Arg Val Arg Phe Ala Ser Leu Asp Lys Asp Thr Asp Gly Arg		
225	230	235
Met Thr Phe Ala Glu Tyr Gln Leu Ser Gly Lys Arg Met Phe Asp Arg		
245	250	255
Ala Asp Ser Asn Gly Asp Gly Val Val Asp Ala Arg Asp Pro Glu Pro		
260	265	270
Val Ala Gly Ala His Ser Ala Asn Gly Asn Arg		
275	280	

&lt;210&gt; 669

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 669

Met	Lys	Ile	Val	Pro	Leu	Thr	Ala	Ala	Val	Leu	Ala	Leu	Val	Leu	Ala
1					5				10				15		

Pro Ala Ala His Ala Gln Pro Ala Asn Lys Ala Thr Thr Val Ser Pro  
                   20                  25                  30  
 Thr Ala Ala Ala Phe Leu Ala Gln Phe Ala Thr Glu Gly Asn Asp Ser  
                   35                  40                  45  
 Val Ser Trp Ala Gln Phe Glu Ala Phe Arg Lys Gln Arg Tyr Ala Asp  
                   50                  55                  60  
 Thr Asp Arg Asn Gln Asp Gly His Val Asp Glu Gln Glu Tyr Val Asp  
                   65                  70                  75                  80  
 Glu Tyr Leu Gln Arg Phe Asp Val Arg Leu Ala Asp Ala Arg Ala Gly  
                   85                  90                  95  
 His Leu Arg Gln Thr Asp Thr Arg Phe Lys Ala Leu Asp Arg Asp Gly  
                   100                  105                  110  
 Asn Gly Ala Ile Ser Arg Ala Glu Tyr Asp Ala Ala Gly Glu Arg Thr  
                   115                  120                  125  
 Trp Ala Gly Tyr Glu Arg Ser Gln Asn Ala Thr Gln Glu Thr Ala Ala  
                   130                  135                  140  
 Ala Ser Ser Arg Asp Pro Leu Lys Met Pro Thr Ser His Thr Ala Asn  
                   145                  150                  155                  160  
 Gly Met Leu Asp Leu Tyr Asp Arg Asn Lys Asp Gly Ala Val Asp Arg  
                   165                  170                  175  
 Glu Glu Phe Asp Ala Val Arg Ala Ala Ser Phe Ala Ala Thr Asp Thr  
                   180                  185                  190  
 Asp Gly Asn Gly Thr Leu Ser Leu Ala Glu Tyr Thr Ala Glu Phe Glu  
                   195                  200                  205  
 Gly Arg Leu Asp Gln Gln Arg Gln Arg Val Arg Ala Asp Ala Glu Arg  
                   210                  215                  220  
 Gln Ala Arg Val Arg Phe Ala Ser Leu Asp Lys Asp Thr Asp Gly Arg  
                   225                  230                  235                  240  
 Met Thr Phe Ala Glu Tyr Gln Leu Ser Gly Lys Arg Met Phe Asp Arg  
                   245                  250                  255  
 Ala Asp Ser Asn Gly Asp Gly Val Val Asp Ala Arg Asp Pro Glu Pro  
                   260                  265                  270  
 Val Ala Gly Ala His Ser Ala Asn Gly Asn Arg  
                   275                  280

&lt;210&gt; 670

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 670

Asn	Leu	Trp	Xaa	Ala	His	Phe	Phe	Leu	Asn	Xaa	Ser	Ser	Ile	Gln	Ile
1				5				10						15	

Glu	Tyr	Pro	Pro	Leu	Ser	Lys	Met	Leu	Glu	Thr	Pro	Lys	Gly	Lys	Gly
			20					25					30		

Trp	Phe	Phe	Gly	Glu	Phe	Phe	Phe	Trp	Val	Phe	Leu	Phe	Phe	Leu	Gly
		35					40					45			

Phe	Ala	Phe	Gly	Phe	Trp	Asn	Ser	Leu	Phe	Val	Leu	Tyr	Leu	Phe	Val
	50					55					60				

Gly	His	Pro	Lys	Ser	Glu	Ile	Cys	Ser	Lys	Ile	Gln	Asn	Val	Lys	Cys
65					70					75				80	

Ser	Ser	Glu	His	Phe	Leu
					85

&lt;210&gt; 671

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 671

Met	Gly	Leu	Leu	Pro	Gly	Trp	Leu	Leu	Leu	Trp	Ala	Arg	Leu	Lys	Cys
1				5				10						15	

Phe	Cys	Ala	Val	Gly	Leu	Gly	Ser	Leu	Ala	Ala	Val	Tyr	Gly	Arg	Gly
			20					25					30		

Pro	Gly	Leu	Pro	Gln	Asp	Gln	Leu	Asp	Cys	Val	Leu	Trp	Asp	Cys	Gly
	35					40						45			

Thr	Leu	Gly	Leu	Tyr	Arg	Gly	Gln	Phe
	50					55		

&lt;210&gt; 672

&lt;211&gt; 12

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 672

Leu Phe Ser Gly Trp Leu Val Xaa Leu Cys Gly Val  
1 5 10

&lt;210&gt; 673

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 673

Met Gly Glu Thr Leu Val Ser Val Phe Leu Lys Pro Pro Ala Leu Thr  
1 5 10 15

Trp Leu Leu Arg Ala Ile Cys Leu Met Val Gln Thr Trp Ala Xaa Gly  
20 25 30

Gln Arg Ser Trp Pro Gln Ser Leu Ala Leu Pro Cys Tyr Leu Asn Arg  
35 40 45

&lt;210&gt; 674

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (19)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 674

Met Leu Xaa Ser Asn Ser Phe Ser Pro Ser Leu Ser Xaa Tyr Leu Cys  
 1 5 10 15

Xaa Leu Xaa Phe Ser Leu Xaa Ser Ser Lys Ser Ser Lys  
 20 25

&lt;210&gt; 675

&lt;211&gt; 29

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 675

Met Leu Cys Ser Asn Ser Phe Ser Pro Ser Leu Ser Val Tyr Leu Cys  
 1 5 10 15

Ser Leu Cys Phe Ser Leu Val Ser Ser Lys Ser Ser Lys  
 20 25

&lt;210&gt; 676

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 676

Met Pro Pro His Arg Gln Thr Asp Gly Gln Met Gly Leu Pro Ala Pro  
 1 5 10 15

Ala Leu Trp Val Trp Gly Leu Leu Leu Ser Ser Ser Phe Gln Thr Leu  
 20 25 30

Leu Pro Ala Phe Pro Lys Pro Pro Ala Leu Asn Leu Gly Cys Ser Thr  
 35 40 45

Arg Pro Ile Pro Ser Phe Leu Lys Ile  
 50 55

&lt;210&gt; 677

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (65)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 677

Gln Val Ser Leu Pro Thr Arg Leu Leu Gln Met Pro Gly Met Gly Leu  
 1 5 10 15  
 Asp Ser Arg Phe Gln Ala Trp Xaa Pro Ser Pro Tyr Leu Gly Pro Gln  
 20 25 30  
 Pro Arg Ala Pro Arg Pro Gly Leu Gln Pro Gly Pro Ser Leu Arg Gly  
 35 40 45  
 Ala Glu Phe Arg Glu Ser Cys Pro Arg Ser Gln Lys Arg Gly Arg Glu  
 50 55 60  
 Xaa Gly Arg Pro Cys Pro Gly Cys Arg Pro Gly Gly Trp Gly Leu Pro  
 65 70 75 80  
 Ala Arg Leu Gly Gln Pro Gln Leu Gln Thr Gly Pro Gly  
 85 90

<210> 678  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 678  
 Met Pro Pro His Arg Gln Thr Asp Gly Gln Met Gly Leu Pro Ala Pro  
 1 5 10 15  
 Ala Leu Trp Val Trp Gly Leu Leu Leu Ser Ser Ser Phe Gln Thr Leu  
 20 25 30  
 Leu Pro Ala Phe Pro Lys Pro Pro Ala Leu Asn Leu Gly Cys Ser Thr  
 35 40 45  
 Arg Pro Ile Pro Ser Phe Leu Lys Ile  
 50 55

<210> 679  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (13)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 679  
 Met Val Gly Arg Cys Ser Ile Leu Ser Ser Thr Pro Xaa Arg His Pro  
 1 5 10 15  
 Ser Leu Ser Trp Glu Gly Leu Gly Gly  
 20 25

<210> 680

<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 680  
Met Val Gly Arg Cys Ser Ile Leu Ser Ser Thr Pro Gln Arg His Pro  
1 5 10 15

Ser Leu Ser Trp Glu Gly Leu Gly Gly  
20 25

<210> 681  
<211> 18  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (13)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 681  
Met Gly Thr Gln Gly Cys Pro His Pro Ser Trp Leu Xaa Leu Leu Gly  
1 5 10 15

Leu Ser

<210> 682  
<211> 30  
<212> PRT  
<213> Homo sapiens

<400> 682  
Met Gly Thr Gln Gly Cys Pro His Pro Ser Trp Leu Leu Leu Leu Gly  
1 5 10 15

Leu Ser Trp Trp Gly Glu Gly Asp Gly Ala Val Gly Pro Cys  
20 25 30

<210> 683  
<211> 10  
<212> PRT  
<213> Homo sapiens

<400> 683  
Ser Leu Leu Glu Leu Gly Leu Gly Pro Leu  
1 5 10

<210> 684  
<211> 206  
<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 684

Asp Xaa Xaa Pro Gly Ala Tyr Ala Gly Phe Arg Pro Asn Ala Asn Arg  
1 5 10 15

Ile Ser Phe Pro Val Phe Arg Asn Asn Val Cys Pro Trp Pro Glu Ala  
20 25 30

Leu Arg Ser Ala Pro Lys Leu Leu Xaa Leu Asp Glu Pro Met Gly Ala  
35 40 45

Leu Asp Lys Lys Leu Arg Asp Arg Met Gln Leu Glu Val Val Asp Ile  
50 55 60

Leu Glu Arg Val Gly Val Thr Cys Val Met Val Thr His Asp Gln Glu  
65 70 75 80

Glu Ala Met Thr Met Ala Gly Arg Ile Ala Ile Met Asn Arg Gly Lys  
85 90 95

Phe Val Gln Ile Gly Glu Pro Glu Glu Ile Tyr Glu His Pro Thr Thr  
100 105 110

Arg Tyr Ser Ala Glu Phe Ile Gly Ser Val Asn Val Phe Glu Gly Val  
115 120 125

Leu Lys Glu Arg Gln Glu Asp Gly Leu Val Leu Asp Ser Pro Gly Leu  
130 135 140

Val His Pro Leu Lys Val Asp Ala Asp Ala Ser Val Val Asp Asn Val  
145 150 155 160

Pro Val His Val Ala Leu Arg Pro Glu Lys Ile Met Leu Cys Glu Glu  
165 170 175

Pro Pro Ala Asn Gly Cys Asn Phe Ala Val Gly Glu Val Ile His Ile  
180 185 190

Ala Tyr Leu Gly Asp Leu Ser Val Tyr His Val Arg Leu Lys  
195 200 205

<210> 685



<211> 440  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (168)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (169)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (173)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (180)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (191)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 685

Met Ala Ser Leu Val Ser Leu Glu Leu Gly Leu Leu Leu Ala Val Leu  
 1 5 10 15

Val Val Thr Ala Thr Ala Ser Pro Pro Ala Gly Leu Leu Ser Leu Leu  
 20 25 30

Thr Ser Gly Gln Gly Ala Leu Asp Gln Glu Ala Leu Gly Gly Leu Leu  
 35 40 45

Asn Thr Leu Ala Asp Arg Val His Cys Ala Asn Gly Pro Cys Gly Lys  
 50 55 60

Cys Leu Ser Val Glu Asp Ala Leu Gly Leu Gly Glu Pro Glu Gly Ser  
 65 70 75 80

Gly Leu Pro Pro Gly Pro Val Leu Glu Ala Arg Tyr Val Ala Arg Leu  
 85 90 95

Ser Ala Ala Ala Val Leu Tyr Leu Ser Asn Pro Glu Gly Thr Cys Glu  
 100 105 110

Asp Ala Arg Ala Gly Leu Trp Ala Ser His Ala Asp His Leu Leu Ala  
 115 120 125

Leu Leu Glu Ser Pro Lys Ala Leu Thr Pro Gly Leu Ser Trp Leu Leu  
 130 135 140

Gln Arg Met Gln Ala Arg Ala Ala Gly Gln Thr Pro Lys Thr Ala Cys  
 145 150 155 160

Val Asp Ile Pro Gln Leu Leu Xaa Xaa Ala Val Gly Xaa Gly Ala Pro  
 165 170 175  
 Gly Ser Ala Xaa Gly Val Leu Ala Ala Leu Leu Asp His Val Xaa Ser  
 180 185 190  
 Gly Ser Cys Phe His Ala Leu Pro Ser Pro Gln Tyr Phe Val Asp Phe  
 195 200 205  
 Val Phe Gln Gln His Ser Ser Glu Val Pro Met Thr Leu Ala Glu Leu  
 210 215 220  
 Ser Ala Leu Met Gln Arg Leu Gly Val Gly Arg Glu Ala His Ser Asp  
 225 230 235 240  
 His Ser His Arg His Arg Gly Ala Ser Ser Arg Asp Pro Val Pro Leu  
 245 250 255  
 Ile Ser Ser Ser Asn Ser Ser Ser Val Trp Asp Thr Val Cys Leu Ser  
 260 265 270  
 Ala Arg Asp Val Met Ala Ala Tyr Gly Leu Ser Glu Gln Ala Gly Val  
 275 280 285  
 Thr Pro Glu Ala Trp Ala Gln Leu Ser Pro Ala Leu Leu Gln Gln Gln  
 290 295 300  
 Leu Ser Gly Ala Cys Thr Ser Gln Ser Arg Pro Pro Val Gln Asp Gln  
 305 310 315 320  
 Leu Ser Gln Ser Glu Arg Tyr Leu Tyr Gly Ser Leu Ala Thr Leu Leu  
 325 330 335  
 Ile Cys Leu Cys Ala Val Phe Gly Leu Leu Leu Leu Thr Cys Thr Gly  
 340 345 350  
 Cys Arg Gly Val Thr His Tyr Ile Leu Gln Thr Phe Leu Ser Leu Ala  
 355 360 365  
 Val Gly Ala Leu Thr Gly Asp Ala Val Leu His Leu Thr Pro Lys Val  
 370 375 380  
 Leu Gly Leu His Thr His Ser Glu Glu Gly Leu Ser Pro Gln Pro Thr  
 385 390 395 400  
 Trp Arg Leu Leu Ala Met Leu Ala Gly Leu Tyr Ala Phe Phe Leu Phe  
 405 410 415  
 Glu Asn Leu Phe Asn Leu Leu Leu Pro Arg Asp Pro Glu Asp Leu Glu  
 420 425 430  
 Asp Gly Pro Ala Ala Thr Ala Ala  
 435 440

&lt;210&gt; 686

&lt;211&gt; 647

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 686

Met Ala Ser Leu Val Ser Leu Glu Leu Gly Leu Leu Leu Ala Val Leu  
 1 5 10 15

Val Val Thr Ala Thr Ala Ser Pro Pro Ala Gly Leu Leu Ser Leu Leu  
 20 25 30

Thr Ser Gly Gln Gly Ala Leu Asp Gln Glu Ala Leu Gly Gly Leu Leu  
 35 40 45

Asn Thr Leu Ala Asp Arg Val His Cys Ala Asn Gly Pro Cys Gly Lys  
 50 55 60

Cys Leu Ser Val Glu Asp Ala Leu Gly Leu Gly Glu Pro Glu Gly Ser  
 65 70 75 80

Gly Leu Pro Pro Gly Pro Val Leu Glu Ala Arg Tyr Val Ala Arg Leu  
 85 90 95

Ser Ala Ala Ala Val Leu Tyr Leu Ser Asn Pro Glu Gly Thr Cys Glu  
 100 105 110

Asp Ala Arg Ala Gly Leu Trp Ala Ser His Ala Asp His Leu Leu Ala  
 115 120 125

Leu Leu Glu Ser Pro Lys Ala Leu Thr Pro Gly Leu Ser Trp Leu Leu  
 130 135 140

Gln Arg Met Gln Ala Arg Ala Ala Gly Gln Thr Pro Lys Thr Ala Cys  
 145 150 155 160

Val Asp Ile Pro Gln Leu Leu Glu Glu Ala Val Gly Ala Gly Ala Pro  
 165 170 175

Gly Ser Ala Gly Gly Val Leu Ala Ala Leu Leu Asp His Val Arg Ser  
 180 185 190

Gly Ser Cys Phe His Ala Leu Pro Ser Pro Gln Tyr Phe Val Asp Phe  
 195 200 205

Val Phe Gln Gln His Ser Ser Glu Val Pro Met Thr Leu Ala Glu Leu  
 210 215 220

Ser Ala Leu Met Gln Arg Leu Gly Val Gly Arg Glu Ala His Ser Asp  
 225 230 235 240

His Ser His Arg His Arg Gly Ala Ser Ser Arg Asp Pro Val Pro Leu  
 245 250 255

Ile Ser Ser Ser Asn Ser Ser Ser Val Trp Asp Thr Val Cys Leu Ser  
 260 265 270

Ala Arg Asp Val Met Ala Ala Tyr Gly Leu Ser Glu Gln Ala Gly Val  
 275 280 285

Thr Pro Glu Ala Trp Ala Gln Leu Ser Pro Ala Leu Leu Gln Gln Gln  
 290 295 300

Leu Ser Gly Ala Cys Thr Ser Gln Ser Arg Pro Pro Val Gln Asp Gln

305	310	315	320
Leu Ser Gln Ser Glu Arg Tyr Leu Tyr Gly Ser Leu Ala Thr Leu Leu			
325		330	335
Ile Cys Leu Cys Ala Val Phe Gly Leu Leu Leu Leu Thr Cys Thr Gly			
340		345	350
Cys Arg Gly Val Thr His Tyr Ile Leu Gln Thr Phe Leu Ser Leu Ala			
355		360	365
Val Gly Ala Leu Thr Gly Asp Ala Val Leu His Leu Thr Pro Lys Val			
370		375	380
Leu Gly Leu His Thr His Ser Glu Glu Gly Leu Ser Pro Gln Pro Thr			
385		390	400
Trp Arg Leu Leu Ala Met Leu Ala Gly Leu Tyr Ala Phe Phe Leu Phe			
405		410	415
Glu Asn Leu Phe Asn Leu Leu Leu Pro Arg Asp Pro Glu Asp Leu Glu			
420		425	430
Asp Gly Pro Cys Gly His Ser Ser His Ser His Gly Gly His Ser His			
435		440	445
Gly Val Ser Leu Gln Leu Ala Pro Ser Glu Leu Arg Gln Pro Lys Pro			
450		455	460
Pro His Glu Gly Ser Arg Ala Asp Leu Val Ala Glu Glu Ser Pro Glu			
465		470	475
Leu Leu Asn Pro Glu Pro Arg Arg Leu Ser Pro Glu Leu Arg Leu Leu			
485		490	495
Pro Tyr Met Ile Thr Leu Gly Asp Ala Val His Asn Phe Ala Asp Gly			
500		505	510
Leu Ala Val Gly Ala Ala Phe Ala Ser Ser Trp Lys Thr Gly Leu Ala			
515		520	525
Thr Ser Leu Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp			
530		535	540
Phe Ala Ala Leu Leu His Ala Gly Leu Ser Val Arg Gln Ala Leu Leu			
545		550	555
Leu Asn Leu Ala Ser Ala Leu Thr Ala Phe Ala Gly Leu Tyr Val Ala			
565		570	575
Leu Ala Val Gly Val Ser Glu Glu Ser Glu Ala Trp Ile Leu Ala Val			
580		585	590
Ala Thr Gly Leu Phe Leu Tyr Val Ala Leu Cys Asp Met Leu Pro Ala			
595		600	605
Met Leu Lys Val Arg Asp Pro Arg Pro Trp Leu Leu Phe Leu Leu His			
610		615	620
Asn Val Gly Leu Leu Gly Gly Trp Thr Val Leu Leu Leu Leu Ser Leu			

625

630

635

640

Tyr Glu Asp Asp Ile Thr Phe  
645

&lt;210&gt; 687

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 687

Ile Ser Val Ile Phe Asn Asp Thr Val Lys Lys Thr Met Gln Glu Cys  
1 5 10 15

Ser Ala Met Lys Gln Ile Phe Lys Asp Leu Phe Thr Gly Phe Leu Ser  
20 25 30

Trp Asn Ile His Leu Phe Pro Arg Cys Leu Cys Asp Ser Glu Ile Xaa  
35 40 45

Pro

&lt;210&gt; 688

&lt;211&gt; 307

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (249)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (261)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 688

Met Leu Arg Val Val Glu Gly Ile Phe Ile Phe Val Val Val Ser Glu  
1 5 10 15

Ser Val Phe Gly Val Leu Gly Asn Gly Phe Ile Gly Leu Val Asn Cys  
20 25 30

Ile Asp Cys Ala Lys Asn Lys Leu Ser Thr Ile Gly Phe Ile Leu Thr  
35 40 45

Gly Leu Ala Ile Ser Arg Ile Phe Leu Ile Trp Ile Ile Ile Thr Asp  
50 55 60

Gly Phe Ile Gln Ile Phe Ser Pro Asn Ile Tyr Ala Ser Gly Asn Leu  
 65 70 75 80  
 Ile Glu Tyr Ile Ser Tyr Phe Trp Val Ile Gly Asn Gln Ser Ser Met  
 85 90 95  
 Trp Phe Ala Thr Ser Leu Ser Ile Phe Tyr Phe Leu Lys Ile Ala Asn  
 100 105 110  
 Phe Ser Asn Tyr Ile Phe Leu Trp Leu Lys Ser Arg Thr Asn Met Val  
 115 120 125  
 Leu Pro Phe Met Ile Val Phe Leu Leu Ile Ser Ser Leu Leu Asn Phe  
 130 135 140  
 Ala Tyr Ile Ala Lys Ile Leu Asn Asp Tyr Lys Met Lys Asn Asp Thr  
 145 150 155 160  
 Val Trp Asp Leu Asn Met Tyr Lys Ser Glu Tyr Phe Ile Lys Gln Ile  
 165 170 175  
 Leu Leu Asn Leu Gly Val Ile Phe Phe Phe Thr Leu Ser Leu Ile Thr  
 180 185 190  
 Cys Ile Phe Leu Ile Ile Ser Leu Trp Arg His Asn Arg Gln Met Gln  
 195 200 205  
 Ser Asn Val Thr Gly Leu Arg Asp Ser Asn Thr Glu Ala His Val Lys  
 210 215 220  
 Ala Met Lys Val Leu Ile Ser Phe Ile Ile Leu Phe Ile Leu Tyr Phe  
 225 230 235 240  
 Ile Gly Met Ala Ile Glu Ile Ser Xaa Phe Thr Val Arg Glu Asn Lys  
 245 250 255  
 Leu Leu Leu Met Xaa Gly Met Thr Thr Thr Ala Ile Tyr Pro Trp Gly  
 260 265 270  
 His Ser Phe Ile Leu Ile Leu Gly Asn Ser Lys Leu Lys Gln Ala Ser  
 275 280 285  
 Leu Arg Val Leu Gln Gln Leu Lys Cys Cys Glu Lys Arg Lys Asn Leu  
 290 295 300  
 Arg Val Thr  
 305

&lt;210&gt; 689

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 689

Met Val Leu Pro Phe Met Ile Val Phe Leu Leu Ile Ser Ser Leu Leu  
 1 5 10 15

Asn Phe Ala Tyr Ile Ala Lys Ile Leu Asn Asp Tyr Lys Met Lys Asn

20                      25                      30  
 Asp Thr Val Trp Asp Leu Asn Met Tyr Lys Ser Glu Tyr Phe Ile Lys  
           35                      40                      45  
 Gln Ile Leu Leu Asn Leu Gly Val Ile Phe Phe Phe Thr Leu Ser Leu  
           50                      55                      60  
 Ile Thr Cys Ile Phe Leu Ile Ile Ser Leu Trp Arg His Asn Arg Gln  
           65                      70                      75                      80  
 Met Gln Ser Asn Val Thr Gly Leu Arg Asp Ser Asn Thr Glu Ala His  
                                  85                      90                      95  
 Val Lys Ala Met Lys Val Leu Ile Ser Phe Ile Ile Leu Phe Ile Leu  
                                  100                      105                      110  
 Tyr Phe Ile Gly Met Ala Ile Glu Ile Ser Cys Phe Thr Val Arg Glu  
                                  115                      120                      125  
 Asn Lys Leu Leu Leu Met Phe Gly Met Thr Thr Thr Ala Ile Tyr Pro  
                                  130                      135                      140  
 Trp Gly His Ser Phe Ile Leu Ile Leu Gly Asn Ser Lys Leu Lys Gln  
                                  145                      150                      155                      160  
 Ala Ser Leu Arg Val Leu Gln Gln Leu Lys Cys Cys Glu Lys Arg Lys  
                                  165                      170                      175  
 Asn Leu Arg Val Thr  
                                  180

<210> 690  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 690  
 Ala Ala Met Arg Arg Trp Ala Ser Ser Ser Leu Glu Gly Glu Glu Leu  
           1                      5                      10                      15  
 Ser Thr Gln Arg Asp Leu Thr Arg Lys Val His Pro Pro Ser Thr Gln  
                                  20                      25                      30  
 Glu Ala Pro Ala Asp Ser Met Cys Phe Arg Leu Cys Trp Pro Asn Gly  
                                  35                      40                      45  
 Leu Cys Arg Asp Tyr Ser Ala Leu Pro Leu Trp Leu Gln Ser Asp His  
                                  50                      55                      60  
 Arg Pro Ser Glu Ser Glu  
           65                      70

<210> 691  
 <211> 88  
 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 691

Met Pro Val Gly Ser Leu Pro His Pro Gly Cys Leu Trp Ala Ala Phe  
1 5 10 15

Leu Thr Leu Asp Ala Cys Gly Leu Pro Ser Ser Pro Trp Met Pro Val  
20 25 30

Gly Ser Leu Pro His Pro Gly Cys Leu Trp Ala Ala Phe Leu Thr Leu  
35 40 45

Asp Ala Cys Gly Gln Pro Ser Ser Pro Trp Met Pro Val Gly Xaa Leu  
50 55 60

Leu Thr Leu Asp Ala Cys Gly Gln Xaa Ser Ser Pro Gly Cys Leu Trp  
65 70 75 80

Ala Ala Phe Leu Thr Trp Ser Leu  
85

<210> 692

<211> 190

<212> PRT

<213> Homo sapiens

<400> 692

Met Pro Val Gly Ser Leu Pro His Pro Gly Cys Leu Trp Ala Ala Phe  
1 5 10 15

Leu Thr Leu Asp Ala Cys Gly Leu Pro Ser Ser Pro Trp Met Pro Val  
20 25 30

Gly Ser Leu Pro His Pro Gly Cys Leu Trp Ala Ala Phe Leu Thr Leu  
35 40 45

Asp Ala Cys Gly Gln Pro Ser Ser Pro Trp Met Pro Val Gly Cys Leu  
50 55 60

Pro His Pro Gly Cys Leu Trp Ala Ala Phe Leu Thr Leu Asp Ala Cys  
65 70 75 80

Gly Gln Pro Ser Ser Pro Trp Met Pro Val Thr Trp Phe Pro Trp Gly  
85 90 95

Leu Pro Lys Leu Arg Asp Pro Lys Pro Pro Ser Asn Leu Met Thr Arg  
100 105 110



Pro Val Ser Glu His Thr Cys Val Val Pro Glu Pro Leu Thr Asn Pro  
 115 120 125

Leu Cys Asn Pro Ala His Ala Phe Pro Ile Leu Lys Gly Pro Ala His  
 130 135 140

Arg Pro Ala His Val Phe Pro Leu Pro Leu Leu Cys Pro Tyr Leu Val  
 145 150 155 160

Gly Ser Cys Pro Phe Trp Ala Leu Val Trp His Phe Thr His Lys Cys  
 165 170 175

Val Leu Trp Val Val Ser Gly Pro Pro Pro Ala Val Arg Gly  
 180 185 190

<210> 693

<211> 38

<212> PRT

<213> Homo sapiens

<400> 693

Met Trp Leu Ser Pro Val Pro Gly Val Cys Ala Ala Val Leu Ala Leu  
 1 5 10 15

Ser Phe Trp Ile Ala Lys Phe Pro Gly Glu Gly Thr Ala Ile Ala Lys  
 20 25 30

Ala Leu Gly Arg Leu Lys  
 35

<210> 694

<211> 38

<212> PRT

<213> Homo sapiens

<400> 694

Met Trp Leu Ser Pro Val Pro Gly Val Cys Ala Ala Val Leu Ala Leu  
 1 5 10 15

Ser Phe Trp Ile Ala Lys Phe Pro Gly Glu Gly Thr Ala Ile Ala Lys  
 20 25 30

Ala Leu Gly Arg Leu Lys  
 35

<210> 695

<211> 26

<212> PRT

<213> Homo sapiens

<400> 695

Gly Leu Phe Leu Gly Gln Met Asn Trp Ile Phe Ser Cys Cys Phe Ser  
 1 5 10 15

Asn Asn Val Thr Thr Val Lys Lys Arg  
20 25

<210> 696

<211> 166

<212> PRT

<213> Homo sapiens

<400> 696

Met Ser Phe Thr Val Ser Met Ala Ile Gly Leu Val Leu Gly Gly Phe  
1 5 10 15

Ile Trp Ala Val Phe Ile Cys Leu Ser Arg Arg Arg Arg Ala Ser Ala  
20 25 30

Pro Ile Ser Gln Trp Ser Ser Ser Arg Arg Ser Arg Ser Ser Tyr Thr  
35 40 45

His Gly Leu Asn Arg Thr Gly Phe Tyr Arg His Ser Gly Cys Glu Arg  
50 55 60

Arg Ser Asn Leu Ser Leu Ala Ser Leu Thr Phe Gln Arg Gln Ala Ser  
65 70 75 80

Leu Glu Gln Ala Asn Ser Phe Pro Arg Lys Ser Ser Phe Arg Ala Ser  
85 90 95

Thr Phe His Pro Phe Leu Gln Cys Pro Pro Leu Pro Val Glu Thr Glu  
100 105 110

Ser Gln Leu Val Thr Leu Pro Ser Ser Asn Ile Ser Pro Thr Ile Ser  
115 120 125

Thr Ser His Ser Leu Ser Arg Pro Asp Tyr Trp Ser Ser Asn Ser Leu  
130 135 140

Arg Val Gly Leu Ser Thr Pro Pro Pro Pro Ala Tyr Glu Ser Ile Ile  
145 150 155 160

Lys Ala Phe Pro Asp Ser  
165

<210> 697

<211> 166

<212> PRT

<213> Homo sapiens

<400> 697

Met Ser Phe Thr Val Ser Met Ala Ile Gly Leu Val Leu Gly Gly Phe  
1 5 10 15

Ile Trp Ala Val Phe Ile Cys Leu Ser Arg Arg Arg Arg Ala Ser Ala  
20 25 30

Pro Ile Ser Gln Trp Ser Ser Ser Arg Arg Ser Arg Ser Ser Tyr Thr  
35 40 45

His Gly Leu Asn Arg Thr Gly Phe Tyr Arg His Ser Gly Cys Glu Arg  
 50 55 60  
 Arg Ser Asn Leu Ser Leu Ala Ser Leu Thr Phe Gln Arg Gln Ala Ser  
 65 70 75 80  
 Leu Glu Gln Ala Asn Ser Phe Pro Arg Lys Ser Ser Phe Arg Ala Ser  
 85 90 95  
 Thr Phe His Pro Phe Leu Gln Cys Pro Pro Leu Pro Val Glu Thr Glu  
 100 105 110  
 Ser Gln Leu Val Thr Leu Pro Ser Ser Asn Ile Ser Pro Thr Ile Ser  
 115 120 125  
 Thr Ser His Ser Leu Ser Arg Pro Asp Tyr Trp Ser Ser Asn Ser Leu  
 130 135 140  
 Arg Val Gly Leu Ser Thr Pro Pro Pro Pro Ala Tyr Glu Ser Ile Ile  
 145 150 155 160  
 Lys Ala Phe Pro Asp Ser  
 165

<210> 698  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 698  
 Met Val Leu Ile Asn Ser Gly Lys Pro Gly Ser Lys Cys Cys Trp Val  
 1 5 10 15  
 Phe Arg Pro Gly Leu Ser Ala Pro Cys Ser Ala Leu Trp Trp Gly Cys  
 20 25 30  
 Pro Gly Leu Ala Leu Ser Leu Ser Gly Pro Gln Val Arg Leu Phe Thr  
 35 40 45  
 Arg Arg Tyr Glu Thr Thr Leu Pro Asn Thr Gly Pro Trp  
 50 55 60

<210> 699  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 699  
 Met Leu Leu Gly Leu Gln Ala Arg Leu Val Ser Ser Leu Leu Cys Ser  
 1 5 10 15  
 Val Val Gly Cys Leu Gly Cys Ser Phe Phe Cys Pro Arg Arg Tyr Tyr  
 20 25 30  
 Lys Lys Leu Asn Leu His Lys Ala Cys Met Glu Asn Ser Val Ser Ala

35

40

45

Glu Ile Arg Ser Asp Arg  
50

&lt;210&gt; 700

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens.

&lt;400&gt; 700

Met Ser Arg Tyr Leu Leu Pro Leu Ser Ala Leu Gly Thr Val Ala Gly  
1 5 10 15

Ala Ala Val Leu Leu Lys Asp Tyr Val Thr Gly Gly Ala Cys Pro Ser  
20 25 30

Lys Ala Thr Ile Pro Gly Lys Thr Val Ile Val Thr Gly Ala Asn Thr  
35 40 45

Gly Ile Gly Lys Gln Thr Ala Leu Glu Leu Ala Arg Arg Gly Gly Asn  
50 55 60

Ile Ile Leu Ala Cys Arg Asp Met Glu Lys Cys Glu Ala Ala Ala Lys  
65 70 75 80

Asp Ile Arg Gly Glu Thr Leu Asn His His Val Asn Ala Arg His Leu  
85 90 95

Asp Leu Ala Ser Leu Lys Ser Ile Arg Glu Phe Ala Ala Lys Ile Ile  
100 105 110

Glu Glu Glu Glu Arg Val Asp Ile Leu Ile Asn Asn Ala Gly Val Met  
115 120 125

Arg Cys Pro His Trp Thr Thr Glu Asp Gly Phe Glu Met Gln Phe Gly  
130 135 140

Val Asn His Leu Gly His Phe Leu Leu Thr Asn Leu Leu Leu Asp Lys  
145 150 155 160

Leu Lys Ala Ser Ala Pro Ser Arg Ile Ile Asn Leu Ser Ser Leu Ala  
165 170 175

His Val Ala Gly His Ile Asp Phe Asp Asp Leu Asn Trp Gln Thr Arg  
180 185 190

Lys Tyr Asn Thr Lys Ala Ala Tyr Cys Gln Ser Lys Leu Ala Ile Val  
195 200 205

Leu Phe Thr Lys Glu Leu Ser Arg Arg Leu Gln Gly Thr Gly Ala Leu  
210 215 220

Gly Ser Ala Ser Leu Leu Leu Tyr Ser Glu Pro Arg Ala Ala Phe Pro  
225 230 235 240

<210> 701  
 <211> 246  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (222)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (223)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (236)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (242)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (244)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 701  
 Met Gly Ala Ala Val Phe Phe Gly Cys Thr Phe Val Ala Phe Gly Pro  
           1                  5                  10                  15  
 Ala Phe Ala Leu Phe Leu Ile Thr Val Ala Gly Asp Pro Leu Arg Val  
                   20                  25                  30  
 Ile Ile Leu Val Ala Gly Ala Phe Phe Trp Leu Val Ser Leu Leu Leu  
           35                  40                  45  
 Ala Ser Val Val Trp Phe Ile Leu Val His Val Thr Asp Arg Ser Asp  
           50                  55                  60  
 Ala Arg Leu Gln Tyr Gly Leu Leu Ile Phe Gly Ala Ala Val Ser Val  
           65                  70                  75                  80  
 Leu Leu Gln Glu Val Phe Arg Phe Ala Tyr Tyr Lys Leu Leu Lys Lys  
                   85                  90                  95  
 Ala Asp Glu Gly Leu Ala Ser Leu Ser Glu Asp Gly Arg Ser Pro Ile  
           100                  105                  110  
 Ser Ile Arg Gln Met Ala Tyr Val Ser Gly Leu Ser Phe Gly Ile Ile  
           115                  120                  125  
 Ser Gly Val Phe Ser Val Ile Asn Ile Leu Ala Asp Ala Leu Gly Pro  
           130                  135                  140

Gly Val Val Gly Ile His Gly Asp Ser Pro Tyr Tyr Phe Leu Thr Ser  
145 150 155 160

Ala Phe Leu Thr Ala Ala Ile Ile Leu Leu His Thr Phe Trp Gly Val  
165 170 175

Val Phe Phe Asp Ala Cys Glu Arg Arg Arg Tyr Trp Ala Leu Gly Leu  
180 185 190

Val Val Gly Ser His Leu Leu Thr Ser Gly Leu Thr Phe Leu Asn Pro  
195 200 205

Trp Tyr Glu Ala Ser Leu Leu Pro Ser Met Gln Ser Leu Xaa Xaa Trp  
210 215 220

Gly Ser Gly Pro Ser Ser Gln Leu Glu Gly Pro Xaa Lys Tyr Ser Ala  
225 230 235 240

Gln Xaa Leu Xaa Lys Asp  
245

<210> 702

<211> 5

<212> PRT

<213> Homo sapiens

<400> 702

Gly Glu Ile Phe Leu  
1 5

<210> 703

<211> 84

<212> PRT

<213> Homo sapiens

<400> 703

Lys Met His Phe Asn Lys Asn Lys Ser Ile Leu Lys Ser Phe Ser Phe  
1 5 10 15

Val Arg Gly Asn Met Asn Glu Ile His Ser Tyr Leu Lys Thr Glu Tyr  
20 25 30

Phe Thr Ala Lys Thr Leu Asn Ile Ser Arg Ala Tyr His Ile Leu Asn  
35 40 45

Thr Leu Trp Ser Cys Ser Tyr Phe Asn Ile Pro Gly Ser Gly Gly Gln  
50 55 60

Leu Ala Cys Leu Trp Leu Arg Ile Cys Phe His Ala Cys Phe Leu Ser  
65 70 75 80

Phe Phe Tyr Leu

<210> 704  
 <211> 5  
 <212> PRT  
 <213> Homo sapiens

<400> 704  
 Val Leu Leu Ile Leu  
           1                  5

<210> 705  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (45)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (47)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (51)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (134)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (183)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (222)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (224)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (255)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 705  
 Met Pro Arg His Leu Ser Gly Leu Leu Leu Leu Trp Pro Leu Leu  
           1                  5                  10                  15

Leu Leu Leu Pro Pro Thr Pro Ala Ala Pro Gly Pro Leu Ala Arg Pro  
                   20                                  25                                  30  
 Gly Leu Arg Arg Leu Gly Thr Arg Gly Pro Gly Gly Xaa Pro Xaa Arg  
                   35                                  40                                  45  
 Arg Pro Xaa Ser Ala Val Pro Thr Arg Ala Pro Tyr Ser Gly Ala Gly  
                   50                                  55                                  60  
 Gln Pro Gly Gly Ala Arg Gly Ala Gly Val Cys Arg Ser Arg Pro Leu  
                   65                                  70                                  75                                  80  
 Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro Leu Glu  
                                   85                                  90                                  95  
 Phe Thr Lys Val Lys Thr Phe Val Ser Gln Ile Ile Asp Thr Leu Asp  
                                   100                                  105                                  110  
 Ile Gly Ala Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala Ser Thr  
                   115                                  120                                  125  
 Val Lys Ile Glu Phe Xaa Leu Gln Thr His Ser Asp Lys Gln Ser Leu  
                   130                                  135                                  140  
 Lys Gln Ala Val Ala Arg Ile Thr Pro Leu Ser Thr Gly Thr Met Ser  
                   145                                  150                                  155                                  160  
 Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val Glu Ala  
                                   165                                  170                                  175  
 Gly Ala Arg Gly Pro Thr Xaa Asn Ile Pro Lys Val Ala Ile Ile Val  
                                   180                                  185                                  190  
 Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala Arg Ala  
                   195                                  200                                  205  
 Arg Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Xaa Ala Xaa  
                   210                                  215                                  220  
 Met Glu Ser Leu Gln Asp Glu Trp Pro Ala Lys Pro Leu Asp Glu His  
                   225                                  230                                  235                                  240  
 Val Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Pro Ser Xaa Arg  
                                   245                                  250                                  255  
 Phe Gln Glu Thr Leu Leu Arg Ser Trp Asn  
                   260                                  265

&lt;210&gt; 706

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 706

Met Pro Arg His Leu Ser Gly Leu Leu Leu Leu Trp Pro Leu Leu  
   1                                  5                                  10                                  15



Leu Leu Leu Pro Pro Thr Pro Ala Ala Pro Gly Pro Leu Ala Arg Pro  
 20 25 30  
 Gly Leu Arg Arg Leu Gly Thr Arg Gly Pro Gly Gly Ser Pro Gly Arg  
 35 40 45  
 Arg Pro Gly Ser Ala Val Pro Thr Arg Ala Pro Tyr Ser Gly Ala Gly  
 50 55 60  
 Gln Pro Gly Gly Ala Arg Gly Ala Gly Val Cys Arg Ser Arg Pro Leu  
 65 70 75 80  
 Asp Leu Val Phe Ile Ile Asp Ser Ser Arg Ser Val Arg Pro Leu Glu  
 85 90 95  
 Phe Thr Lys Val Lys Thr Phe Val Ser Gln Ile Ile Asp Thr Leu Asp  
 100 105 110  
 Ile Gly Ala Ala Asp Thr Arg Val Ala Val Val Asn Tyr Ala Ser Thr  
 115 120 125  
 Val Lys Ile Glu Phe His Leu Gln Thr His Ser Asp Lys Gln Ser Leu  
 130 135 140  
 Lys Gln Ala Val Ala Arg Ile Thr Pro Leu Ser Thr Gly Thr Met Ser  
 145 150 155 160  
 Gly Leu Ala Ile Gln Thr Ala Met Asp Glu Ala Phe Thr Val Glu Ala  
 165 170 175  
 Gly Ala Arg Gly Pro Thr Ser Asn Ile Pro Lys Val Ala Ile Ile Val  
 180 185 190  
 Thr Asp Gly Arg Pro Gln Asp Gln Val Asn Glu Val Ala Ala Arg Ala  
 195 200 205  
 Arg Ala Ser Gly Ile Glu Leu Tyr Ala Val Gly Val Asp Arg Ala Asp  
 210 215 220  
 Met Glu Ser Leu Lys Met Met Ala Ser Glu Pro Leu Asp Glu His Val  
 225 230 235 240  
 Phe Tyr Val Glu Thr Tyr Gly Val Ile Glu Lys Leu Ser Ser Arg Phe  
 245 250 255  
 Gln Glu Thr Phe Cys Ala Leu Asp Pro Cys Val Leu Gly Thr His Arg  
 260 265 270  
 Cys Gln His Val Cys Val Ser Asp Gly Glu Gly Lys His His Cys Glu  
 275 280 285  
 Cys Ser Gln Gly Tyr Ser Leu Asn Ala Asp Gln Lys Thr Cys Ser Ala  
 290 295 300  
 Ile Asp Lys Cys Ala Leu Asn Thr His Gly Cys Glu His Ile Cys Val  
 305 310 315 320  
 Asn Asp Arg Thr Gly Ser Tyr His Cys Glu Cys Tyr Glu Gly Tyr Thr  
 325 330 335

Leu Asn Gln Asp Arg Lys Thr Cys Ser Ala Gln Asp Gln Cys Ala Phe  
                   340                                  345                                  350  
 Gly Thr His Gly Cys Gln His Ile Cys Val Asn Asp Arg Asp Gly Ser  
                   355                                  360                                  365  
 His His Cys Glu Cys Tyr Glu Gly Tyr Thr Leu Asn Ala Asp Asn Lys  
                   370                                  375                                  380  
 Thr Cys Ser Val Arg Ser Glu Cys Ala Gly Gly Ser His Gly Cys Gln  
                   385                                  390                                  395                                  400  
 His Leu Cys Val Asp Asp Gly Pro Ala Ala Tyr His Cys Asp Cys Phe  
                                   405                                  410                                  415  
 Pro Gly Tyr Thr Leu Thr Glu Asp Arg Arg Thr Cys Ala Ala Ile Glu  
                                   420                                  425                                  430  
 Glu Ala Arg Arg Leu Val Ser Thr Glu Asp Ala Cys Gly Cys Glu Ala  
                   435                                  440                                  445  
 Thr Leu Ala Phe Gln Glu Arg Ala Ser Ser Tyr Leu Gln Arg Leu Asn  
                   450                                  455                                  460  
 Ala Lys Leu Asp Asp Ile Leu Gly Lys Leu Gln Ala Asp Ala Tyr Gly  
                   465                                  470                                  475                                  480  
 Gln Ile His Arg

&lt;210&gt; 707

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (310)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (365)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 707

Met Gln Pro Ser Ser Leu Leu Pro Leu Ala Leu Cys Leu Leu Ala Ala  
   1                                  5                                  10                                  15

Pro Ala Ser Ala Leu Val Arg Ile Pro Leu His Lys Phe Thr Ser Ile  
                   20                                  25                                  30

Arg Arg Thr Met Ser Glu Val Gly Gly Ser Val Glu Asp Leu Ile Ala  
                   35                                  40                                  45

Lys Gly Pro Val Ser Lys Tyr Ser Gln Ala Val Pro Ala Val Thr Glu  
                   50                                  55                                  60

Gly Pro Ile Pro Glu Val Leu Lys Asn Tyr Met Asp Ala Gln Tyr Tyr  
 65 70 75 80  
 Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Cys Phe Thr Val Val Phe  
 85 90 95  
 Asp Thr Gly Ser Ser Asn Leu Trp Val Pro Ser Ile His Cys Lys Leu  
 100 105 110  
 Leu Asp Ile Ala Cys Trp Ile His His Lys Tyr Asn Ser Asp Lys Ser  
 115 120 125  
 Ser Thr Tyr Val Lys Asn Gly Thr Ser Phe Asp Ile His Tyr Gly Ser  
 130 135 140  
 Gly Ser Leu Ser Gly Tyr Leu Ser Gln Asp Thr Val Ser Val Pro Cys  
 145 150 155 160  
 Gln Ser Ala Ser Ser Ala Ser Ala Leu Gly Gly Val Lys Val Glu Arg  
 165 170 175  
 Gln Val Phe Gly Glu Ala Thr Lys Gln Pro Gly Ile Thr Phe Ile Ala  
 180 185 190  
 Ala Lys Phe Asp Gly Ile Leu Gly Met Ala Tyr Pro Arg Ile Ser Val  
 195 200 205  
 Asn Asn Val Leu Pro Val Phe Asp Asn Leu Met Gln Gln Lys Leu Val  
 210 215 220  
 Asp Gln Asn Ile Phe Ser Phe Tyr Leu Ser Arg Asp Pro Asp Ala Gln  
 225 230 235 240  
 Pro Gly Gly Glu Leu Met Leu Gly Gly Thr Asp Ser Lys Tyr Tyr Lys  
 245 250 255  
 Gly Ser Leu Ser Tyr Leu Asn Val Thr Arg Lys Ala Tyr Trp Gln Val  
 260 265 270  
 His Leu Asp Gln Val Glu Val Ala Ser Gly Leu Thr Leu Cys Lys Glu  
 275 280 285  
 Gly Cys Glu Ala Ile Val Asp Thr Gly Thr Ser Leu Met Val Gly Pro  
 290 295 300  
 Val Asp Glu Val Arg Xaa Leu Gln Lys Ala Ile Gly Ala Val Pro Leu  
 305 310 315 320  
 Ile Gln Gly Glu Tyr Met Ile Pro Cys Glu Lys Val Ser Thr Leu Pro  
 325 330 335  
 Ala Ile Thr Leu Lys Leu Gly Gly Lys Gly Tyr Lys Leu Ser Pro Glu  
 340 345 350  
 Asp Tyr Thr Leu Lys Val Ser Gln Ala Gly Lys Thr Xaa Cys Leu Ser  
 355 360 365

<210> 708  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 708  
 Leu Val Val Leu Gly Val Cys Ala Ala Gln His Glu Leu Thr Pro Arg  
     1                    5                    10                    15  
 Leu Arg Ala Gly Val Pro Val Gln Val Glu Arg Glu Asp Val Leu Leu  
             20                    25                    30  
 His Gln Leu Leu Leu His Gln Val Ile Lys Xaa Gly Lys His Ile Val  
             35                    40                    45  
 Asp Arg Asp Ala Gly Val Gly His Ala Gln Asp Ala Val Glu Leu Gly  
             50                    55                    60  
 Arg Asp Glu Gly Xaa Xaa Arg Leu Leu Gly Gly Phe Pro Glu Arg Leu  
     65                    70                    75                    80  
 Pro Leu His Leu Asp Ala Ser Gln Ala Arg Gln Thr  
                     85                    90

<210> 709  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (50)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

&lt;222&gt; (86)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (100)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 709

Met	Gln	Pro	Pro	Ser	Leu	Leu	Leu	Leu	Val	Leu	Gly	Leu	Leu	Ala	Ala
1				5					10					15	

Pro	Ala	Ala	Ala	Leu	Val	Arg	Ile	Pro	Leu	His	Lys	Phe	Thr	Ser	Val
			20					25					30		

Arg	Arg	Thr	Met	Ser	Glu	Leu	Gly	Gly	Pro	Val	Glu	Asp	Leu	Ile	Ala
		35					40					45			

Arg	Xaa	Pro	Ile	Ser	Lys	Tyr	Ala	Gln	Gly	Val	Pro	Ser	Val	Ala	Gly
	50					55					60				

Gly	Pro	Val	Pro	Glu	Xaa	Leu	Lys	Glu	Thr	Thr	Trp	Asn	Ala	Gln	Ile
65					70					75					80

Leu	Arg	Gly	Lys	Phe	Xaa	His	Pro	Gly	Thr	Pro	Pro	Arg	Lys	Leu	Leu
				85					90					95	

Pro	Pro	Val	Xaa	Pro	Phe	Glu	Lys	Arg	Gly	Ser	Phe	Pro	Thr	Leu	Leu
			100					105					110		

Gly	Ser	Pro
		115

&lt;210&gt; 710

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 710

Met	Gln	Pro	Pro	Ser	Leu	Leu	Leu	Leu	Val	Leu	Gly	Leu	Leu	Ala	Ala
1				5					10					15	

Pro	Ala	Ala	Ala	Leu	Val	Arg	Ile	Pro	Leu	His	Lys	Phe	Thr	Ser	Val
			20					25					30		

Arg	Arg	Thr	Met	Ser	Glu	Leu	Gly	Gly	Pro	Val	Glu	Asp	Leu	Ile	Ala
		35					40					45			

Arg	Gly	Pro	Ile	Ser	Lys	Tyr	Ala	Gln	Gly	Val	Pro	Ser	Val	Ala	Gly
	50					55					60				

Gly	Pro	Val	Pro	Glu	Val	Leu	Arg	Asn	Tyr	Met	Asp	Ala	Gln	Tyr	Tyr
65					70					75					80

Gly	Glu	Ile	Gly	Ile	Gly	Thr	Pro	Pro	Gln	Cys	Phe	Thr	Val	Val	Phe
				85					90					95	

Asp	Thr	Gly	Ser	Ser	Asn	Leu	Trp	Val	Pro	Ser	Ile	His	Cys	Lys	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

376

<210> 711  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (25)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (77)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 711  
 Ala Ala Arg Glu Gly Ala Pro Pro Pro Cys Pro Thr Ser Ala Ile Gly  
           1                  5                  10                  15  
 Arg Ala Ser Leu Ser Leu Arg Asp Xaa Gly Arg Gly Leu Arg Asp Ala  
                   20                  25                  30  
 Arg Arg Glu Lys Arg Arg Gly Val Arg Gly Gln Asp Gly Gly Asp Tyr  
           35                  40                  45  
 Gly Trp Cys Gly Pro Ala Arg Gly Arg Gly Val Ala Ala Lys Gly Thr  
           50                  55                  60  
 Ala Glu Gly Pro Thr Gly Glu Asn Arg Ala Gln Gly Xaa Lys Xaa Gly  
           65                  70                  75                  80  
 Val Arg Val Ala Val Glu Ala Ser Ser Val Arg Gly Pro Gly Arg Ala  
                   85                  90                  95

<210> 712  
 <211> 453  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (432)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 712  
 Met Arg Met Ala Ser Ile Met Val Trp Val Met Ile Ile Met Val Ile  
           1                  5                  10                  15  
 Leu Val Leu Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg

20. 25 30  
 Leu Arg Gly Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly Phe  
 35 40 45  
 Gln Thr Asp Phe Arg Val Tyr Leu His Leu Arg Gln Thr Trp Leu Ala  
 50 55 60  
 Phe Met Ile Ile Leu Ser Ile Leu Glu Val Ile Ile Ile Leu Leu Leu  
 65 70 75 80  
 Ile Phe Leu Arg Lys Arg Ile Leu Ile Ala Ile Ala Leu Ile Lys Glu  
 85 90 95  
 Ala Ser Arg Ala Val Gly Tyr Val Met Cys Ser Leu Leu Tyr Pro Leu  
 100 105 110  
 Val Thr Phe Phe Leu Leu Cys Leu Cys Ile Ala Tyr Trp Ala Ser Thr  
 115 120 125  
 Ala Val Phe Leu Ser Thr Ser Asn Glu Ala Val Tyr Lys Ile Phe Asp  
 130 135 140  
 Asp Ser Pro Cys Pro Phe Thr Ala Lys Thr Cys Asn Pro Glu Thr Phe  
 145 150 155 160  
 Pro Ser Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg Cys Gln Phe  
 165 170 175  
 Ala Phe Tyr Gly Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu  
 180 185 190  
 Gln Ile Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe Val Leu  
 195 200 205  
 Ala Leu Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp  
 210 215 220  
 Ala Leu Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala  
 225 230 235 240  
 Phe Gly Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala  
 245 250 255  
 Leu Ile Leu Ala Ile Val Gln Ile Ile Arg Val Ile Leu Glu Tyr Leu  
 260 265 270  
 Asp Gln Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala Lys Cys Leu Met  
 275 280 285  
 Thr Cys Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys Phe Ile Lys Phe  
 290 295 300  
 Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Thr Asn Phe  
 305 310 315 320  
 Cys Thr Ser Ala Arg Asn Ala Phe Phe Leu Leu Met Arg Asn Ile Ile  
 325 330 335  
 Arg Val Ala Val Leu Asp Lys Val Thr Asp Phe Leu Phe Leu Leu Gly



340

345

350

Lys Leu Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe Phe  
 355 360 365

Thr His Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr  
 370 375 380

Tyr Trp Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala  
 385 390 395 400

His Gly Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu  
 405 410 415

Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Xaa  
 420 425 430

Tyr Phe Met Ser Ser Thr Leu Lys Lys Leu Leu Asn Lys Thr Asn Lys  
 435 440 445

Lys Ala Ala Glu Ser  
 450

&lt;210&gt; 713

&lt;211&gt; 453

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 713

Met Arg Met Ala Ser Ile Met Val Trp Val Met Ile Ile Met Val Ile  
 1 5 10 15

Leu Val Leu Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg  
 20 25 30

Leu Arg Gly Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly Phe  
 35 40 45

Gln Thr Asp Phe Arg Val Tyr Leu His Leu Arg Gln Thr Trp Leu Ala  
 50 55 60

Phe Met Ile Ile Leu Ser Ile Leu Glu Val Ile Ile Ile Leu Leu Leu  
 65 70 75 80

Ile Phe Leu Arg Lys Arg Ile Leu Ile Ala Ile Ala Leu Ile Lys Glu  
 85 90 95

Ala Ser Arg Ala Val Gly Tyr Val Met Cys Ser Leu Leu Tyr Pro Leu  
 100 105 110

Val Thr Phe Phe Leu Leu Cys Leu Cys Ile Ala Tyr Trp Ala Ser Thr  
 115 120 125

Ala Val Phe Leu Ser Thr Ser Asn Glu Ala Val Tyr Lys Ile Phe Asp  
 130 135 140

Asp Ser Pro Cys Pro Phe Thr Ala Lys Thr Cys Asn Pro Glu Thr Phe  
 145 150 155 160

379

Pro Ser Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg Cys Gln Phe  
 165 170 175  
 Ala Phe Tyr Gly Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu  
 180 185 190  
 Gln Ile Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe Val Leu  
 195 200 205  
 Ala Leu Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp  
 210 215 220  
 Ala Leu Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala  
 225 230 235 240  
 Phe Gly Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala  
 245 250 255  
 Leu Ile Leu Ala Ile Val Gln Ile Ile Arg Val Ile Leu Glu Tyr Leu  
 260 265 270  
 Asp Gln Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala Lys Cys Leu Met  
 275 280 285  
 Thr Cys Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys Phe Ile Lys Phe  
 290 295 300  
 Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Thr Asn Phe  
 305 310 315 320  
 Cys Thr Ser Ala Arg Asn Ala Phe Phe Leu Leu Met Arg Asn Ile Ile  
 325 330 335  
 Arg Val Ala Val Leu Asp Lys Val Thr Asp Phe Leu Phe Leu Leu Gly  
 340 345 350  
 Lys Leu Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe Phe  
 355 360 365  
 Thr His Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr  
 370 375 380  
 Tyr Trp Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala  
 385 390 395 400  
 His Gly Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu  
 405 410 415  
 Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Pro  
 420 425 430  
 Tyr Phe Met Ser Ser Thr Leu Lys Lys Leu Leu Asn Lys Thr Asn Lys  
 435 440 445  
 Lys Ala Ala Glu Ser  
 450

<210> 714  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (56)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 714  
 Gly Arg Pro Thr Arg Pro Leu Ser Ala Gln Asn Ala Ser Val Asn Phe  
           1                          5                          10                          15  
 Trp Glu Ala Ser Thr Leu Ala Ala Gln Arg Glu Leu Ala Met Gln Phe  
                           20                          25                          30  
 Leu Cys Pro Gly Asn His Cys Phe Pro Cys His Leu Leu Cys Ala Gln  
                           35                          40                          45  
 Lys Arg Tyr Asn Ser His Gln Xaa Thr Pro Val Val Thr Ala His Leu  
           50                          55                          60  
 Val Cys Cys Val Phe Gln Gln Ser Val Leu Leu Gly Val Gln Leu Asn  
           65                          70                          75                          80  
 Arg Leu Gly Val

<210> 715  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 715  
 Met Trp Trp Ala Leu Leu Ala Cys Arg Phe Cys Cys Pro Arg Arg Cys  
           1                          5                          10                          15  
 Ala Ser Ala Trp Gln Gly Leu Pro Arg Arg Gly Ala Leu Phe Ser Gly  
                           20                          25                          30

<210> 716  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 716  
 Met Trp Trp Ala Leu Leu Ala Leu Pro Phe Leu Leu Pro Thr Ala Leu

1                      5                      10                      15  
 Arg Leu Cys Leu Ala Gly Leu Pro His Xaa Phe Arg His Thr Asn Arg  
                     20                      25                      30  
 Met Val Pro Gln Trp His Gln Ser Gly Asp Arg Pro Leu His Ser His  
                     35                      40                      45  
 Pro His Ser Arg Phe  
                     50

<210> 717  
 <211> 744  
 <212> PRT  
 <213> Homo sapiens

<400> 717  
 Met Trp Trp Ala Leu Leu Ala Leu Pro Phe Leu Leu Pro Thr Ala Leu  
   1                      5                      10                      15  
 Arg Leu Cys Leu Ala Gly Pro Pro Pro Glu Arg Gly Pro Leu Phe Trp  
                     20                      25                      30  
 Leu Thr Arg Gln Asp Ser Arg Glu Ser Gly Ala Ala Asn Ala Thr Val  
                     35                      40                      45  
 Ser Pro Cys Glu Gly Leu Pro Ser Ala Gly Ala Ser Thr Leu Thr Leu  
                     50                      55                      60  
 Ala Asn Arg Ser Leu Glu Arg Leu Pro Asn Cys Leu Pro Pro Ala Leu  
   65                      70                      75                      80  
 Arg Ser Leu Asp Ala Ser His Asn Leu Leu Arg Ala Leu Ser Ala Pro  
                     85                      90                      95  
 Glu Leu Gly Ala Leu Pro Arg Leu Gln Ala Leu Thr Leu Arg His Asn  
                     100                      105                      110  
 Arg Ile Ala Glu Leu Arg Trp Gly Pro Gly Gly Pro Ala Ala Leu His  
                     115                      120                      125  
 Thr Leu Asp Leu Ser Tyr Asn Gln Leu Ala Thr Leu Pro Pro Cys Ala  
                     130                      135                      140  
 Gly Pro Ala Leu Pro Gly Leu Arg Ser Leu Ala Leu Ala Gly Asn Pro  
   145                      150                      155                      160  
 Leu Gln Ala Leu Gln Pro Gly Ala Phe Ala Cys Leu Pro Ala Leu Arg  
                     165                      170                      175  
 Leu Leu Asn Leu Ser Gly Thr Ala Leu Gly Arg Asp Leu Gly Ala Gly  
                     180                      185                      190  
 Ile Ala Asp Gly Ala Phe Ala Gly Ala Gly Gly Ala Leu Glu Val Leu  
                     195                      200                      205  
 Asp Leu Ser Gly Thr Phe Leu Glu Arg Val Arg Ser Gly Trp Ile Arg  
                     210                      215                      220

Asp Leu Pro Lys Leu Thr Ser Leu His Leu Arg Lys Met Pro Arg Leu  
 225 230 235 240  
 Arg Ile Leu Glu Ala Ala Val Phe Lys Met Thr Pro Asn Leu Gln Gln  
 245 250 255  
 Leu Asp Cys Gln Asp Ser Ser Ala Leu Thr Ser Val His Thr Gln Leu  
 260 265 270  
 Phe Gln Asp Thr Pro Arg Leu Gln Val Leu Leu Phe Gln Asn Cys Asn  
 275 280 285  
 Leu Ser Ser Phe Pro Pro Trp Ser Leu His Ser Ser Gln Val Leu Ser  
 290 295 300  
 Ile Ser Leu Phe Gly Asn Pro Leu Ile Cys Ser Cys Glu Leu Ser Trp  
 305 310 315 320  
 Leu Leu Arg Asp Ala Lys Arg Thr Val Leu Ser Arg Ala Ala Asp Thr  
 325 330 335  
 Val Cys Val Pro Ala Ser Gly Ser Arg Asp Thr Phe Ser Ala Pro Leu  
 340 345 350  
 Ser Leu Ser Gln Leu Pro Thr Val Cys His Leu Asp Gln Ser Thr Thr  
 355 360 365  
 Leu His Ser Ser Ser Pro Gln Ala Val Pro Phe Thr His Gln Pro Ser  
 370 375 380  
 Thr Gln Gly Leu Thr Thr Pro Trp Ser Thr Ala Pro Ser Thr Arg Pro  
 385 390 395 400  
 Val Glu Ala Glu Gln Ser Val Thr Lys Pro Leu Ser Phe Pro Thr Asp  
 405 410 415  
 Ser Ala Thr Gln Thr Ala Trp Ser His Ser Gly Ile Lys Val Gly Thr  
 420 425 430  
 Ala Arg Ser Thr Ala Ile Pro Thr Ala Asp Ser Ser Thr Ser Ser Ala  
 435 440 445  
 Pro Arg Arg Ala Ala Asn Thr Ala Gly Ala Glu His Gln Glu His Ala  
 450 455 460  
 Pro Met Leu Val His Ala Pro His Val Ser Ala Ala Ser Thr Pro Ser  
 465 470 475 480  
 Ala Ser Lys His Pro Gly Leu Phe Pro Thr Pro Trp Ser Gln Val Arg  
 485 490 495  
 Thr Pro Gln Pro Asp Tyr Arg Ala Gln Ala Thr Leu Gln Ala Pro His  
 500 505 510  
 Pro Ser Pro Ser Glu Gly Ala Ile Pro Val Leu Leu Leu Asp Glu Ser  
 515 520 525  
 Ser Glu Glu Glu Glu Gly Gln Lys Glu Glu Val Gly Ala Pro Pro  
 530 535 540

Gln Asp Val Pro Cys Asp Tyr His Pro Cys Lys His Leu Gln Thr Pro  
 545 550 555 560  
 Cys Ala Glu Leu Gln Arg Arg Ser Arg Cys Arg Cys Pro Gly Leu Ser  
 565 570 575  
 Gly Glu Asp Ser Leu Pro Asp Pro Pro Arg Leu Gln Ala Val Thr Glu  
 580 585 590  
 Thr Thr Asp Thr Ser Ala Leu Val Arg Trp Cys Ala Pro Asn Ser Val  
 595 600 605  
 Val His Gly Tyr Gln Ile His Tyr Ser Pro Glu Gly Trp Ala Glu Asn  
 610 615 620  
 Gln Ser Val Thr Val Val Ala Asp Ile Tyr Ala Thr Ala Arg Gln His  
 625 630 635 640  
 Pro Leu Tyr Gly Leu Ser Pro Gly Thr Met Tyr Arg Val Cys Val Leu  
 645 650 655  
 Ala Ala Asn Arg Ala Gly Leu Ser Gln Pro Val Gln Ala Ser Gly Trp  
 660 665 670  
 Thr Arg Ala Cys Ala Ala Phe Thr Thr Lys Pro Ser Phe Val Leu Val  
 675 680 685  
 Phe Ala Gly Leu Cys Ala Ala Cys Gly Leu Leu Leu Val Thr Thr Leu  
 690 695 700  
 Leu Leu Ala Ala Cys Leu Cys Arg Arg Ser Arg Thr Val Arg Leu Gln  
 705 710 715 720  
 Arg Tyr Asn Thr His Leu Val Ala Tyr Lys Asn Pro Ala Phe Asp Tyr  
 725 730 735  
 Pro Leu Lys Leu Gln Thr Leu Ser  
 740

&lt;210&gt; 718

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 718

Ala Ile His Phe Thr Gln Gln Asp Met Pro Gln Ile Arg Arg Gln Ile  
 1 5 10 15

Tyr Lys Glu Leu Cys His Ala Asn Ser Leu Cys Glu Arg Arg Ile Pro  
 20 25 30

Gly Leu Lys Pro Met Val Lys Gly Met Gly Thr Trp Gly Thr Leu Pro  
 35 40 45

Ser Arg Glu Thr Pro Val Pro Leu Leu Pro Leu Pro Leu Pro Val Pro  
 50 55 60

Tyr Gly Phe Ser Tyr Leu Asn Val Leu Ile Asp Phe Cys Ile Phe Phe  
 65 70 75 80  
 Ser Leu Arg Glu Tyr Leu Leu Ile Phe Asp Val Gln Gly Val Ala Met  
 85 90 95  
 Glu Gln Pro Leu Leu Pro Leu Leu Gly Arg Ser Leu Ala Leu Trp Pro  
 100 105 110  
 Gly Trp Gly Gly His Pro Pro Ser Arg Val Gln Gly Arg Gly Gln Glu  
 115 120 125  
 His Leu Cys Trp Gly Gly Gly Arg Ala Lys Gly Val Cys Leu Pro Asp  
 130 135 140  
 Ile Gln Thr Leu Phe Tyr Thr Tyr Ile  
 145 150

<210> 719  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 719  
 Met Arg Met Lys Met Arg Lys Arg Lys Trp Gln Leu Gly Gly Cys Pro  
 1 5 10 15  
 Pro Asp Gly Val Ser Trp Glu Leu Pro Ser Gly Leu Val Leu Pro Ala  
 20 25 30  
 Leu Leu Ile Glu Lys Pro Ala Pro Ser Ala Ala Ala Glu Pro  
 35 40 45

<210> 720  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 720  
 Gly Val Ser Trp Glu Gly Thr Pro Met Ser Pro Phe Pro Phe Met Gly  
 1 5 10 15  
 Leu Gly Ser Gly Val Arg Gly Ser His Ser Glu Phe Ala Val Thr Gln  
 20 25 30  
 Leu Leu Val Asp Leu Pro Thr Lys Phe Gly His Val Leu Leu Gly Glu  
 35 40 45  
 Ala Glu Trp Leu Arg Gln Gly Gln Met Leu Ala Val Leu Gln His Lys  
 50 55 60  
 Ser Thr Thr Val Thr Val Ile Ile Leu Pro Gly His Ile His Phe Glu  
 65 70 75 80  
 Val Thr Phe Pro Ala Leu Val Glu Ile Gln Ser Val Phe Leu Tyr Arg  
 85 90 95

Leu Cys Leu

<210> 721

<211> 90

<212> PRT

<213> Homo sapiens

<400> 721

Met Asp Tyr Gly Gly Leu Gln Ser Leu Leu Trp Thr Leu Thr Leu Ala  
1 5 10 15

Ser Ser Pro Val Leu Phe Pro Met Ala Leu Gly Asp Pro Pro Gly Gln  
20 25 30

Lys Gly Ser Gly Val Trp His Pro Leu Met Pro Ala Ser Ser Ser Ala  
35 40 45

Met Cys Ala Ala Ser Gly Thr Met Trp Pro Arg Ser Tyr Phe Arg Ala  
50 55 60

Gln Ile Trp Ala Pro Gln Lys Arg Gln Ser Gly Pro Gly Arg Lys Pro  
65 70 75 80

Ala Ser Thr Ala Pro Cys Gly Arg Ser Met  
85 90

<210> 722

<211> 288

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (268)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (271)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (273)



<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (274)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (276)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (286)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 722

Phe Ser Ser Ser Ala Cys Pro Ser Val Xaa Ser Leu Phe Val Xaa Leu  
1 5 10 15

Gly Lys Asn Pro His Asp Ala Gln Gly His Pro Arg Ala Ser Glu Asp  
20 25 30

Gln Pro Ser Ser Gly Lys Pro Val Thr Ser Tyr Pro Gly Glu Cys Gly  
35 40 45

Phe Val Phe Thr Lys Glu Ala Ser Leu Glu Ile Arg Asp Met Leu Leu  
50 55 60

Ala Asn Lys Val Pro Ala Ala Ala Arg Ala Gly Ala Ile Ala Pro Cys  
65 70 75 80

Glu Val Thr Val Pro Ala Gln Asn Thr Gly Leu Gly Pro Glu Lys Thr  
85 90 95

Ser Phe Phe Gln Ala Leu Gly Ile Thr Thr Lys Ile Ser Arg Gly Thr  
100 105 110

Ile Glu Ile Leu Ser Asp Val Gln Leu Ile Lys Thr Gly Asp Lys Val  
115 120 125

Gly Ala Ser Glu Ala Thr Leu Leu Asn Met Leu Asn Ile Ser Pro Phe  
130 135 140

Ser Phe Gly Leu Ile Ile Gln Gln Val Phe Asp Asn Gly Ser Ile Tyr  
145 150 155 160

Asn Pro Glu Val Leu Asp Ile Thr Glu Glu Thr Leu His Ser Arg Phe  
165 170 175

Leu Glu Gly Val Arg Asn Val Ala Ser Val Cys Leu Gln Ile Gly Tyr  
180 185 190

Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly Tyr Lys Arg  
195 200 205

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu  
210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala Ala  
 225 230 235 240

Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala Ala Pro  
 245 250 255

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile  
 260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val  
 275 280 285

<210> 723

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 723

Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn  
 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu  
 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala  
 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu  
 50 55 60

Glu Arg Lys Ser Leu Leu Xaa Asn Leu Glu Glu Ala Lys Lys Lys Lys  
 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala  
 85 90 95

Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa  
 100 105 110

<210> 724  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 724  
 Leu Leu Leu Val Gly Leu Gln Gln Leu Val Val Gln Ala Trp  
           1                  5                  10

<210> 725  
 <211> 7  
 <212> PRT  
 <213> Homo sapiens

<400> 725  
 Leu Leu Val Val Leu Leu Ser  
           1                  5

<210> 726  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 726  
 Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn  
           1                  5                  10                  15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu  
                   20                  25                  30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala  
           35                  40                  45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu  
           50                  55                  60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys Lys  
           65                  70                  75                  80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala  
                   85                  90                  95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys  
           100                  105                  110

Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu  
           115                  120                  125

Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly  
           130                  135

<210> 727  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (112)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 727  
 Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn  
           1                  5                  10                  15  
 Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu  
                   20                  25                  30  
 Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala  
                   35                  40                  45  
 Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu  
           50                  55                  60  
 Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys Lys  
           65                  70                  75                  80  
 Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala  
                   85                  90                  95  
 Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa  
                   100                  105                  110

<210> 728  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 728  
 Met Leu Leu Leu Tyr Leu  
           1                  5

<210> 729  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 729

Pro Gln Gly Pro Asn Asp Val Thr Ala Lys Leu Leu Cys Pro  
 1 5 10

<210> 730

<211> 67

<212> PRT

<213> Homo sapiens

<400> 730

Met Ala Pro Ser Gly Pro Leu Leu Leu Val Leu Leu Val Pro Leu Ala  
 1 5 10 15

Ala Ala Arg Pro Gly Pro Thr Ser Val Pro Ala Gly Ala Ala Ala Cys  
 20 25 30

Pro Cys Gly Gly Thr Ser Cys Arg Gly Trp Gly Ala Gly Pro Thr Pro  
 35 40 45

Gly Arg Thr Ser Thr Cys Pro His Leu Thr Cys Pro Arg Ala Gly Thr  
 50 55 60

Gly Ala Thr  
 65

<210> 731

<211> 129

<212> PRT

<213> Homo sapiens

<400> 731

Met Ala Pro Ser Gly Pro Leu Leu Leu Val Leu Leu Val Pro Leu Ala  
 1 5 10 15

Ala Ala Arg Ala Gly Pro Tyr Phe Arg Pro Gly Arg Gly Cys Arg Leu  
 20 25 30

Pro Leu Arg Gly Asp Gln Leu Ser Gly Leu Gly Arg Arg Thr Tyr Pro  
 35 40 45

Arg Pro His Glu Tyr Leu Ser Pro Ser Asp Leu Pro Lys Ser Trp Asp  
 50 55 60

Trp Arg Asn Val Asn Gly Val Asn Tyr Ala Ser Ala Thr Arg Asn Gln  
 65 70 75 80

His Ile Pro Gln Tyr Cys Gly Ser Cys Trp Ala His Gly Ser Thr Ser  
 85 90 95

Ala Met Ala Gly Pro Asp Gln His Gln Glu Lys Gly Gly Val Ala Leu  
 100 105 110

His Pro Ala Val Arg Ala Ala Arg Pro Arg Leu Arg Gln Arg Gly Leu  
 115 120 125

Leu

<210> 732  
 <211> 208  
 <212> PRT  
 <213> Homo sapiens

<400> 732  
 Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr  
     1                    5                    10                    15  
 Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met  
           20                    25                    30  
 Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser  
           35                    40                    45  
 Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn  
       50                    55                    60  
 Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp  
   65                    70                    75                    80  
 Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn  
                     85                    90                    95  
 Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu  
           100                    105                    110  
 Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile  
       115                    120                    125  
 Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala  
       130                    135                    140  
 Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys  
   145                    150                    155                    160  
 Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr  
           165                    170                    175  
 Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser  
       180                    185                    190  
 Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile  
       195                    200                    205

<210> 733  
 <211> 208  
 <212> PRT  
 <213> Homo sapiens

<400> 733  
 Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr

1	5	10	15
Leu Gln Val	Leu Ala Leu Leu Gly	Ala Ala His Glu Ser	Ala Ala Met
20	25	30	
Ala Ala Ser	Ala Asn Ile Glu Asn Ser	Gly Leu Pro His Asn Ser	Ser
35	40	45	
Ala Asn Ser	Thr Glu Thr Leu Gln His Val	Pro Ser Asp His Thr Asn	
50	55	60	
Glu Thr Ser	Asn Ser Thr Val Lys Pro Pro Thr	Ser Val Ala Ser Asp	
65	70	75	80
Ser Ser Asn	Thr Thr Val Thr Thr Met Lys Pro Thr	Ala Ala Ser Asn	
85	90	95	
Thr Thr Thr	Pro Gly Met Val Ser Thr Asn Met Thr	Ser Thr Thr Leu	
100	105	110	
Lys Ser Thr	Pro Lys Thr Thr Ser Val Ser Gln Asn Thr	Ser Gln Ile	
115	120	125	
Ser Thr Ser	Thr Met Thr Val Thr His Asn Ser Ser	Val Thr Ser Ala	
130	135	140	
Ala Ser Ser	Val Thr Ile Thr Thr Thr Met His Ser	Glu Ala Lys Lys	
145	150	155	160
Gly Ser Lys	Phe Asp Thr Gly Ser Phe Val Gly Gly	Ile Val Leu Thr	
165	170	175	
Leu Gly Val	Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met	Tyr Tyr Ser	
180	185	190	
Arg Arg Gly	Ile Arg Tyr Arg Thr Ile Asp Glu His Asp	Ala Ile Ile	
195	200	205	

&lt;210&gt; 734

&lt;211&gt; 208

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 734

Met Gly Leu	Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu	Gly Thr
1	5	10 15

Leu Gln Val	Leu Ala Leu Leu Gly Ala Ala His Glu Ser	Ala Ala Met
20	25	30

Ala Ala Ser	Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser	Ser
35	40	45

Ala Asn Ser	Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn
50	55 60

Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp  
 65 70 75 80  
 Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn  
 85 90 95  
 Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu  
 100 105 110  
 Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile  
 115 120 125  
 Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala  
 130 135 140  
 Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys  
 145 150 155 160  
 Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr  
 165 170 175  
 Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser  
 180 185 190  
 Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile  
 195 200 205

&lt;210&gt; 735

&lt;211&gt; 208

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 735

Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr  
 1 5 10 15  
 Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met  
 20 25 30  
 Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser  
 35 40 45  
 Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn  
 50 55 60  
 Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp  
 65 70 75 80  
 Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn  
 85 90 95  
 Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu  
 100 105 110



Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile  
           115                          120                          125  
 Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala  
           130                          135                          140  
 Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys  
           145                          150                          155                          160  
 Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr  
                           165                          170                          175  
 Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser  
                           180                          185                          190  
 Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile  
           195                          200                          205

<210> 736  
 <211> 365  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (144)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (201)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 736  
 Met Phe Val Gly Leu Met Ala Phe Leu Leu Ser Phe Tyr Leu Ile Phe  
       1                          5                          10                          15

Thr Asn Glu Gly Arg Ala Leu Lys Thr Ala Thr Ser Leu Ala Glu Gly  
           20                          25                          30

Leu Ser Leu Val Val Ser Pro Asp Ser Ile His Ser Val Ala Pro Glu  
           35                          40                          45

Asn Glu Gly Arg Leu Val His Ile Ile Gly Ala Leu Arg Thr Ser Lys  
           50                          55                          60

Leu Leu Ser Asp Pro Asn Tyr Gly Val His Leu Pro Ala Val Lys Leu  
       65                          70                          75                          80

Arg Arg His Val Glu Met Tyr Gln Trp Val Glu Thr Glu Glu Ser Arg  
           85                          90                          95

Glu Tyr Thr Glu Asp Gly Gln Val Lys Lys Glu Thr Arg Tyr Ser Tyr  
           100                          105                          110

Asn Thr Glu Trp Arg Ser Glu Ile Ile Asn Ser Lys Asn Phe Asp Arg  
 115 120 125  
 Glu Ile Gly His Lys Asn Pro Ser Ala Met Ala Val Glu Ser Phe Xaa  
 130 135 140  
 Ala Thr Ala Pro Phe Val Gln Ile Gly Arg Phe Phe Leu Ser Ser Gly  
 145 150 155 160  
 Leu Ile Asp Lys Val Asp Asn Phe Lys Ser Leu Ser Leu Ser Lys Leu  
 165 170 175  
 Glu Asp Pro His Val Asp Ile Ile Arg Arg Gly Asp Phe Phe Tyr His  
 180 185 190  
 Ser Glu Asn Pro Lys Tyr Pro Glu Xaa Gly Asp Leu Arg Val Ser Phe  
 195 200 205  
 Ser Tyr Ala Gly Leu Ser Gly Asp Asp Pro Asp Leu Gly Pro Ala His  
 210 215 220  
 Val Val Thr Val Ile Ala Arg Gln Arg Gly Asp Gln Leu Val Pro Phe  
 225 230 235 240  
 Ser Thr Lys Ser Gly Asp Thr Leu Leu Leu Leu His His Gly Asp Phe  
 245 250 255  
 Ser Ala Glu Glu Val Phe His Arg Glu Leu Arg Ser Asn Ser Met Lys  
 260 265 270  
 Thr Trp Gly Leu Arg Ala Ala Gly Trp Met Ala Met Phe Met Gly Leu  
 275 280 285  
 Asn Leu Met Thr Arg Ile Leu Tyr Thr Leu Val Asp Trp Phe Pro Val  
 290 295 300  
 Phe Arg Asp Leu Val Asn Ile Gly Leu Lys Ala Phe Ala Phe Cys Val  
 305 310 315 320  
 Ala Thr Ser Leu Thr Leu Leu Thr Val Ala Ala Gly Trp Leu Phe Tyr  
 325 330 335  
 Arg Pro Leu Trp Ala Leu Leu Ile Ala Gly Leu Ala Leu Val Pro Ile  
 340 345 350  
 Leu Val Ala Arg Thr Arg Val Pro Ala Lys Lys Leu Glu  
 355 360 365

&lt;210&gt; 737

&lt;211&gt; 365

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 737

Met Phe Val Gly Leu Met Ala Phe Leu Leu Ser Phe Tyr Leu Ile Phe  
 1 5 10 15

Thr Asn Glu Gly Arg Ala Leu Lys Thr Ala Thr Ser Leu Ala Glu Gly

20					25					30					
Leu	Ser	Leu	Val	Val	Ser	Pro	Asp	Ser	Ile	His	Ser	Val	Ala	Pro	Glu
		35					40					45			
Asn	Glu	Gly	Arg	Leu	Val	His	Ile	Ile	Gly	Ala	Leu	Arg	Thr	Ser	Lys
	50					55					60				
Leu	Leu	Ser	Asp	Pro	Asn	Tyr	Gly	Val	His	Leu	Pro	Ala	Val	Lys	Leu
65					70					75					80
Arg	Arg	His	Val	Glu	Met	Tyr	Gln	Trp	Val	Glu	Thr	Glu	Glu	Ser	Arg
				85					90					95	
Glu	Tyr	Thr	Glu	Asp	Gly	Gln	Val	Lys	Lys	Glu	Thr	Arg	Tyr	Ser	Tyr
			100					105					110		
Asn	Thr	Glu	Trp	Arg	Ser	Glu	Ile	Ile	Asn	Ser	Lys	Asn	Phe	Asp	Arg
		115					120					125			
Glu	Ile	Gly	His	Lys	Asn	Pro	Ser	Ala	Met	Ala	Val	Glu	Ser	Phe	Met
	130					135					140				
Ala	Thr	Ala	Pro	Phe	Val	Gln	Ile	Gly	Arg	Phe	Phe	Leu	Ser	Ser	Gly
145					150					155					160
Leu	Ile	Asp	Lys	Val	Asp	Asn	Phe	Lys	Ser	Leu	Ser	Leu	Ser	Lys	Leu
				165					170					175	
Glu	Asp	Pro	His	Val	Asp	Ile	Ile	Arg	Arg	Gly	Asp	Phe	Phe	Tyr	His
			180					185					190		
Ser	Glu	Asn	Pro	Lys	Tyr	Pro	Glu	Val	Gly	Asp	Leu	Arg	Val	Ser	Phe
		195					200					205			
Ser	Tyr	Ala	Gly	Leu	Ser	Gly	Asp	Asp	Pro	Asp	Leu	Gly	Pro	Ala	His
	210					215					220				
Val	Val	Thr	Val	Ile	Ala	Arg	Gln	Arg	Gly	Asp	Gln	Leu	Val	Pro	Phe
225					230					235					240
Ser	Thr	Lys	Ser	Gly	Asp	Thr	Leu	Leu	Leu	Leu	His	His	Gly	Asp	Phe
				245					250					255	
Ser	Ala	Glu	Glu	Val	Phe	His	Arg	Glu	Leu	Arg	Ser	Asn	Ser	Met	Lys
			260					265					270		
Thr	Trp	Gly	Leu	Arg	Ala	Ala	Gly	Trp	Met	Ala	Met	Phe	Met	Gly	Leu
		275					280					285			
Asn	Leu	Met	Thr	Arg	Ile	Leu	Tyr	Thr	Leu	Val	Asp	Trp	Phe	Pro	Val
	290					295					300				
Phe	Arg	Asp	Leu	Val	Asn	Ile	Gly	Leu	Lys	Ala	Phe	Ala	Phe	Cys	Val
305					310					315					320
Ala	Thr	Ser	Leu	Thr	Leu	Leu	Thr	Val	Ala	Ala	Gly	Trp	Leu	Phe	Tyr
				325					330					335	
Arg	Pro	Leu	Trp	Ala	Leu	Leu	Ile	Ala	Gly	Leu	Ala	Leu	Val	Pro	Ile

340

345

350

Leu Val Ala Arg Thr Arg Val Pro Ala Lys Lys Leu Glu  
 355 360 365

&lt;210&gt; 738

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 738

Met Leu Trp Pro Cys Cys Pro Ser Pro Leu Pro Ile Trp Ala Ser Pro  
 1 5 10 15

Ser Pro Arg Leu Thr Trp Trp Cys Leu Leu Ser Cys Phe Gly Thr Gln  
 20 25 30

Gly Cys

&lt;210&gt; 739

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 739

Met Leu Trp Pro Cys Cys Pro Ser Pro Leu Pro Ile Trp Ala Ser Pro  
 1 5 10 15

Ser Pro Arg Leu Thr Trp Trp Cys Leu Leu Ser Cys Phe Gly Thr Gln  
 20 25 30

Gly Cys

&lt;210&gt; 740

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 740

Met Arg His Cys Cys Trp Leu Trp Ser Ser Cys Met Leu Trp Glu Pro  
 1 5 10 15

Ser Thr Thr Leu Gly Ser Ser Pro Arg Leu Val Glu Arg Trp Gln Ser  
 20 25 30

Cys Arg Trp Thr Pro Cys Cys Pro Lys  
 35 40

&lt;210&gt; 741

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 741

Met Arg His Cys Cys Trp Leu Trp Ser Ser Cys Met Leu Trp Glu Pro  
 1 5 10 15

Ser Thr Thr Leu Gly Ser Ser Pro Arg Leu Val Glu Arg Trp Gln Ser  
 20 25 30

Cys Arg Trp Thr Pro Cys Cys Pro Lys  
 35 40

&lt;210&gt; 742

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 742

Val His Lys Ser Ala Gly Leu Leu Trp Glu Ala Thr Gly Glu Gly Pro  
 1 5 10 15

Gly Ser

&lt;210&gt; 743

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 743

Val Glu Ile Val His Glu Leu Lys Gly Glu Gly Lys Ala Gln Arg Lys  
 1 5 10 15

Ile Ser Ala Ile His Ile Leu Asp Val Leu Val Leu Asn Gly Thr Asp  
 20 25 30

Val Arg Glu Gln His Phe Asn Gln Arg Ile Gln Leu Ala Glu Lys Phe  
 35 40 45

Val Lys Ala Val Ser Lys Pro Ser Arg Pro Asp Met Asn Pro Ile Arg  
 50 55 60

Val Lys Glu Val Tyr Arg Leu Glu Glu Met Glu Lys Ile Phe Val Arg  
 65 70 75 80

Leu Glu Met Lys Ile Ile Lys Gly Ser Ser Gly Thr Pro Lys Leu Ser  
 85 90 95

Tyr Thr Gly Arg Asp Asp Arg His Phe Val Pro Met Gly Leu Tyr Ile  
 100 105 110

Val Arg Thr Val Asn Glu Pro Trp Thr Met Gly Phe Ser Lys Ser Phe  
 115 120 125

Lys Lys Lys Phe Phe Tyr Asn Lys Lys Thr Lys Asp Ser Thr Phe Asp

130

135

140

Leu Pro Ala Asp Ser Ile Ala Pro Phe His Ile Cys Tyr Tyr Gly Arg  
 145 150 155 160

Leu Phe Trp Glu Trp Gly Asp Gly Ile Arg Val His Asp Ser Gln Lys  
 165 170 175

Pro Gln Asp Gln Asp Lys Leu Ser Lys Glu Asp Val Leu Ser Phe Ile  
 180 185 190

Gln Met His Arg Ala  
 195

&lt;210&gt; 744

&lt;211&gt; 1

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 744

Asn

1

&lt;210&gt; 745

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 745

Met His Ser Lys Gln Thr Leu Leu Trp Lys Glu Leu Leu Leu Ala Ile  
 1 5 10 15

Pro Cys Ile Ile Ala Ser Pro Arg Ser Leu Trp Pro Arg Trp Ala Ser  
 20 25 30

Gly Lys Val Lys Asp Trp Val Asn Thr Ala Arg Val Gly Arg Thr Ser  
 35 40 45

Leu Arg Leu Pro Val Arg Lys Val Glu Xaa Ala Trp Val  
 50 55 60

&lt;210&gt; 746

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 746

Met His Ser Lys Gln Thr Leu Leu Trp Lys Glu Leu Leu Leu Ala Ile  
 1 5 10 15

400

Pro Cys Ile Ile Ala Ser Pro Arg Ser Leu Trp Pro Arg Trp Ala Ser  
                   20                  25                  30

Gly Lys Val Lys Asp Trp Val Asn Thr Ala Arg Val Gly Arg Thr Ser  
           35                  40                  45

Leu Arg Leu Pro Val Arg Lys Val Glu Glu Ala Trp Val  
       50                  55                  60

<210> 747

<211> 53

<212> PRT

<213> Homo sapiens

<400> 747

Asn Tyr Asn Arg Gly Gly Thr Phe Leu Tyr Gln Lys Ala Lys Ile Lys  
       1                  5                  10                  15

His His Val Leu Met Val Phe Tyr Lys Ser Thr Ser Asn Ser Thr Glu  
           20                  25                  30

Ser Leu Ile Trp Ser Leu Leu Asn Ser Trp Ser Asp Lys Val Thr Phe  
           35                  40                  45

Pro Lys Arg Val Arg  
       50

<210> 748

<211> 56

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 748

Lys Ser Gln Met Gln Ser Phe Thr Ile Val Thr Ala Tyr Gly Arg Cys  
       1                  5                  10                  15

Leu Ser Leu Thr Cys Leu Pro Thr Leu Asn Gln Met Leu Val Phe Lys  
           20                  25                  30

Ser Asn Xaa Ser Leu Val Ser Pro His Xaa Leu Thr Phe Xaa Asn Ile

35

40

45

Phe Ala Arg Phe Glu Asn Phe Gln  
 50 55

&lt;210&gt; 749

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 749

Phe Leu Val Cys Leu Leu Leu Gly Pro Arg Ser  
 1 5 10

&lt;210&gt; 750

&lt;211&gt; 6

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 750

Thr Val Ala Ile Tyr Asp  
 1 5

&lt;210&gt; 751

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 751

Ile Asn His Val Phe Ile Trp Gly Ser Ile Ala Ile Tyr Phe Ser Ile  
 1 5 10 15

Leu Phe Thr Met His Ser Asn Gly Ile Phe Gly Ile Phe Pro Asn Gln  
 20 25 30

Phe Pro Phe Val Gly Asn Ala Arg His Ser Leu Thr Xaa Lys  
 35 40 45

&lt;210&gt; 752

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (94)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



&lt;400&gt; 752

Met Asn Thr Leu Val Leu Trp Ile Phe Gly Phe Leu Ile Cys Leu Gly  
 1 5 10 15  
 Ile Ile Leu Ala Ile Gly Asn Ser Ile Trp Glu Ser Gln Thr Gly Asp  
 20 25 30  
 Gln Phe Arg Thr Phe Leu Phe Trp Asn Glu Gly Glu Lys Ser Ser Val  
 35 40 45  
 Phe Ser Gly Phe Leu Thr Phe Trp Ser Tyr Ile Ile Ile Leu Asn Thr  
 50 55 60  
 Val Val Pro Ile Ser Leu Tyr Val Ser Val Glu Val Ile Arg Leu Gly  
 65 70 75 80  
 His Ser Tyr Phe Ile Asn Trp Asp Arg Lys Met Tyr Tyr Xaa Arg Lys  
 85 90 95  
 Ala Ile Pro Ala Val Ala Arg Thr Thr Thr Leu Asn Glu  
 100 105

&lt;210&gt; 753

&lt;211&gt; 937

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 753

Met Gln Asn Ser Gly Lys Thr Lys Phe Lys Arg Thr Ser Ile Asp Arg  
 1 5 10 15  
 Leu Met Asn Thr Leu Val Leu Trp Ile Phe Gly Phe Leu Ile Cys Leu  
 20 25 30  
 Gly Ile Ile Leu Ala Ile Gly Asn Ser Ile Trp Glu Ser Gln Thr Gly  
 35 40 45  
 Asp Gln Phe Arg Thr Phe Leu Phe Trp Asn Glu Gly Glu Lys Ser Ser  
 50 55 60  
 Val Phe Ser Gly Phe Leu Thr Phe Trp Ser Tyr Ile Ile Ile Leu Asn  
 65 70 75 80  
 Thr Val Val Pro Ile Ser Leu Tyr Val Ser Val Glu Val Ile Arg Leu  
 85 90 95  
 Gly His Ser Tyr Phe Ile Asn Trp Asp Arg Lys Met Tyr Tyr Ser Arg  
 100 105 110  
 Lys Ala Ile Pro Ala Val Ala Arg Thr Thr Thr Leu Asn Glu Glu Leu  
 115 120 125  
 Gly Gln Ile Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr Leu Thr Gln  
 130 135 140  
 Asn Ile Met Thr Phe Lys Arg Cys Ser Ile Asn Gly Arg Ile Tyr Gly  
 145 150 155 160

Glu Val His Asp Asp Leu Asp Gln Lys Thr Glu Ile Thr Gln Glu Lys  
 165 170 175  
 Glu Pro Val Asp Phe Ser Val Lys Ser Gln Ala Asp Arg Glu Phe Gln  
 180 185 190  
 Phe Phe Asp His Asn Leu Met Glu Ser Ile Lys Met Gly Asp Pro Lys  
 195 200 205  
 Val His Glu Phe Leu Arg Leu Leu Ala Leu Cys His Thr Val Met Ser  
 210 215 220  
 Glu Glu Asn Ser Ala Gly Glu Leu Ile Tyr Gln Val Gln Ser Pro Asp  
 225 230 235 240  
 Glu Gly Ala Leu Val Thr Ala Ala Arg Asn Phe Gly Phe Ile Phe Lys  
 245 250 255  
 Ser Arg Thr Pro Glu Thr Ile Thr Ile Glu Glu Leu Gly Thr Leu Val  
 260 265 270  
 Thr Tyr Gln Leu Leu Ala Phe Leu Asp Phe Asn Asn Thr Arg Lys Arg  
 275 280 285  
 Met Ser Val Ile Val Arg Asn Pro Glu Gly Gln Ile Lys Leu Tyr Ser  
 290 295 300  
 Lys Gly Ala Asp Thr Ile Leu Phe Glu Lys Leu His Pro Ser Asn Glu  
 305 310 315 320  
 Val Leu Leu Ser Leu Thr Ser Asp His Leu Ser Glu Phe Ala Gly Glu  
 325 330 335  
 Gly Leu Arg Thr Leu Ala Ile Ala Tyr Arg Asp Leu Asp Asp Lys Tyr  
 340 345 350  
 Phe Lys Glu Trp His Lys Met Leu Glu Asp Ala Asn Val Ala Thr Glu  
 355 360 365  
 Glu Arg Asp Glu Arg Ile Ala Gly Leu Tyr Glu Glu Ile Glu Arg Asp  
 370 375 380  
 Leu Met Leu Leu Gly Ala Thr Ala Val Glu Asp Lys Leu Gln Glu Gly  
 385 390 395 400  
 Val Ile Glu Thr Val Thr Ser Leu Ser Leu Ala Asn Ile Lys Ile Trp  
 405 410 415  
 Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Ile Asn Ile Gly Tyr Ala  
 420 425 430  
 Cys Asn Met Leu Thr Asp Asp Met Asn Asp Val Phe Val Ile Ala Gly  
 435 440 445  
 Asn Asn Ala Val Glu Val Arg Glu Glu Leu Arg Lys Ala Lys Gln Asn  
 450 455 460  
 Leu Phe Gly Gln Asn Arg Asn Phe Ser Asn Gly His Val Val Cys Glu  
 465 470 475 480

Lys Lys Gln Gln Leu Glu Leu Asp Ser Ile Val Glu Glu Thr Ile Thr  
 485 490 495  
 Gly Asp Tyr Ala Leu Ile Ile Asn Gly His Ser Leu Ala His Ala Leu  
 500 505 510  
 Glu Ser Asp Val Lys Asn Asp Leu Leu Glu Leu Ala Cys Met Cys Lys  
 515 520 525  
 Thr Val Ile Cys Cys Arg Val Thr Pro Leu Gln Lys Ala Gln Val Val  
 530 535 540  
 Glu Leu Val Lys Lys Tyr Arg Asn Ala Val Thr Leu Ala Ile Gly Asp  
 545 550 555 560  
 Gly Ala Asn Asp Val Ser Met Ile Lys Ser Ala His Ile Gly Val Gly  
 565 570 575  
 Ile Ser Gly Gln Glu Gly Leu Gln Ala Val Leu Ala Ser Asp Tyr Ser  
 580 585 590  
 Phe Ala Gln Phe Arg Tyr Leu Gln Arg Leu Leu Leu Val His Gly Arg  
 595 600 605  
 Trp Ser Tyr Phe Arg Met Cys Lys Phe Leu Cys Tyr Phe Phe Tyr Lys  
 610 615 620  
 Asn Phe Ala Phe Thr Leu Val His Phe Trp Phe Gly Phe Phe Cys Gly  
 625 630 635 640  
 Phe Ser Ala Gln Thr Val Tyr Asp Gln Trp Phe Ile Thr Leu Phe Asn  
 645 650 655  
 Ile Val Tyr Thr Ser Leu Pro Val Leu Ala Met Gly Ile Phe Asp Gln  
 660 665 670  
 Asp Val Ser Asp Gln Asn Ser Val Asp Cys Pro Gln Leu Tyr Lys Pro  
 675 680 685  
 Gly Gln Leu Asn Leu Leu Phe Asn Lys Arg Lys Phe Phe Ile Cys Val  
 690 695 700  
 Met His Gly Ile Tyr Thr Ser Leu Val Leu Phe Phe Ile Pro Tyr Gly  
 705 710 715 720  
 Ala Phe Tyr Asn Val Ala Gly Glu Asp Gly Gln His Ile Ala Asp Tyr  
 725 730 735  
 Gln Ser Phe Ala Val Thr Met Ala Thr Ser Leu Val Ile Val Val Ser  
 740 745 750  
 Val Gln Ile Ala Leu Asp Thr Ser Tyr Trp Thr Phe Ile Asn His Val  
 755 760 765  
 Phe Ile Trp Gly Ser Ile Ala Ile Tyr Phe Ser Ile Leu Phe Thr Met  
 770 775 780  
 His Ser Asn Gly Ile Phe Gly Ile Phe Pro Asn Gln Phe Pro Phe Val  
 785 790 795 800

Gly Asn Ala Arg His Ser Leu Thr Gln Lys Cys Ile Trp Leu Val Ile  
 805 810 815  
 Leu Leu Thr Thr Val Ala Ser Val Met Pro Val Val Ala Phe Arg Phe  
 820 825 830  
 Leu Lys Val Asp Leu Tyr Pro Thr Leu Ser Asp Gln Ile Arg Arg Trp  
 835 840 845  
 Gln Lys Ala Gln Lys Lys Ala Arg Pro Pro Ser Ser Arg Arg Pro Arg  
 850 855 860  
 Thr Arg Arg Ser Ser Ser Arg Arg Ser Gly Tyr Ala Phe Ala His Gln  
 865 870 875 880  
 Glu Gly Tyr Gly Glu Leu Ile Thr Ser Gly Lys Asn Met Arg Ala Lys  
 885 890 895  
 Asn Pro Pro Pro Thr Ser Gly Leu Glu Lys Thr His Tyr Asn Ser Thr  
 900 905 910  
 Ser Trp Ile Glu Asn Leu Cys Lys Lys Thr Thr Asp Thr Val Ser Ser  
 915 920 925  
 Phe Ser Gln Asp Lys Thr Val Lys Leu  
 930 935

<210> 754  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 754  
 Ile Asn Ser Cys Asn Ile Lys Gly Leu Lys Cys Phe Tyr Ile Val Phe  
 1 5 10 15  
 Gly Cys Leu Leu Leu Val Pro Ile Ser Asp Lys Leu Tyr Gly Leu Leu  
 20 25 30  
 His Leu Ile Pro Phe Ile Trp Arg Val Leu Leu Pro Cys  
 35 40 45

<210> 755  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 755  
 Met Lys Leu Leu Val Ile Leu Leu Phe Ser Gly Leu Ile Thr Gly Phe  
 1 5 10 15  
 Arg Ser Asp Ser Ser Ser Ser Leu Pro Pro Lys Leu Leu Leu Val Ser  
 20 25 30  
 Phe Asp Gly Phe Arg Ala Asp Tyr Leu Lys Asn Tyr Glu Phe Pro His

35                      40                      45  
 Leu Gln Asn Phe Ile Lys Glu Gly Val Leu Val Glu His Val Lys Asn  
     50                      55                      60  
 Val Phe Ile Thr Lys Thr Phe Pro Asn His Tyr Ser Ile Val Thr Gly  
     65                      70                      75                      80  
 Leu Tyr Glu Glu Ser His Gly Ile Val Ala Asn Ser Met Tyr Asp Ala  
                     85                      90                      95  
 Val Thr Lys Lys His Phe Ser Asp Ser Asn Asp Lys Asp Pro Phe Trp  
                     100                      105                      110  
 Trp Asn Glu Ala Val Pro Ile Trp Val Thr Asn Gln Leu Gln Glu Thr  
                     115                      120                      125  
 Asp Gln Val Ala Ala Ala Met Trp Ala  
     130                      135

<210> 756  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<400> 756  
 Lys Met Met Met Ile Leu  
     1                      5

<210> 757  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 757  
 Ser Phe Ser Phe Lys Val Val Asp Val Phe Glu Val Ser Lys Ile Val  
     1                      5                      10                      15  
 Ala Glu Tyr Phe Ile Leu Gly Pro Cys Asn Gly Val Ser Phe Asn Asp  
                     20                      25                      30  
 Cys Ile Ile Val Ile Gly Gly Tyr Glu Phe Gln Lys Ser Ile Leu Gly  
                     35                      40                      45  
 Ile Gln Leu Met Ser Gly Phe Tyr Ile Gly Trp Asn Arg Lys Val Cys  
     50                      55                      60  
 Pro Val Ser Ile Leu Thr Leu Ser Thr Arg His Leu Pro Ile Cys Leu  
     65                      70                      75                      80  
 Ser Leu Arg Ser Gln Asn Ile Asn Ser Asn Cys Lys Leu Ser Lys Asn

85

90

95

Xaa Lys Ser Ile Cys  
100

&lt;210&gt; 758

&lt;211&gt; 12

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 758

Leu Leu Thr Ile Leu Leu Trp Ser Ala Leu Ser Tyr  
1 5 10

&lt;210&gt; 759

&lt;211&gt; 453

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 759

Met Lys Leu Leu Val Ile Leu Leu Phe Ser Gly Leu Ile Thr Gly Phe  
1 5 10 15

Arg Ser Asp Ser Ser Ser Ser Leu Pro Pro Lys Leu Leu Leu Val Ser  
20 25 30

Phe Asp Gly Phe Arg Ala Asp Tyr Leu Lys Asn Tyr Glu Phe Pro His  
35 40 45

Leu Gln Asn Phe Ile Lys Glu Gly Val Leu Val Glu His Val Lys Asn  
50 55 60

Val Phe Ile Thr Lys Thr Phe Pro Asn His Tyr Ser Ile Val Thr Gly  
65 70 75 80

Leu Tyr Glu Glu Ser His Gly Ile Val Ala Asn Ser Met Tyr Asp Ala  
85 90 95

Val Thr Lys Lys His Phe Ser Asp Ser Asn Asp Lys Asp Pro Phe Trp  
100 105 110

Trp Asn Glu Ala Val Pro Ile Trp Val Thr Asn Gln Leu Gln Glu Asn  
115 120 125

Arg Ser Ser Ala Ala Ala Met Trp Pro Gly Thr Asp Val Pro Ile His  
130 135 140

Asp Thr Ile Ser Ser Tyr Phe Met Asn Tyr Asn Ser Ser Val Ser Phe  
145 150 155 160

Glu Glu Arg Leu Asn Asn Ile Thr Met Trp Leu Asn Asn Ser Asn Pro  
165 170 175

Pro Val Thr Phe Ala Thr Leu Tyr Trp Glu Glu Pro Asp Ala Ser Gly  
180 185 190

His Lys Tyr Gly Pro Glu Asp Lys Glu Asn Met Ser Arg Val Leu Lys  
 195 200 205  
 Lys Ile Asp Asp Leu Ile Gly Asp Leu Val Gln Arg Leu Lys Met Leu  
 210 215 220  
 Gly Leu Trp Glu Asn Leu Asn Val Ile Ile Thr Ser Asp His Gly Met  
 225 230 235 240  
 Thr Gln Cys Ser Gln Asp Arg Leu Ile Asn Leu Asp Ser Cys Ile Asp  
 245 250 255  
 His Ser Tyr Tyr Thr Leu Ile Asp Leu Ser Pro Val Ala Ala Ile Leu  
 260 265 270  
 Pro Lys Ile Asn Arg Thr Glu Val Tyr Asn Lys Leu Lys Asn Cys Ser  
 275 280 285  
 Pro His Met Asn Val Tyr Leu Lys Glu Asp Ile Pro Asn Arg Phe Tyr  
 290 295 300  
 Tyr Gln His Asn Asp Arg Ile Gln Pro Ile Ile Leu Val Ala Asp Glu  
 305 310 315 320  
 Gly Trp Thr Ile Val Leu Asn Glu Ser Ser Gln Lys Leu Gly Asp His  
 325 330 335  
 Gly Tyr Asp Asn Ser Leu Pro Ser Met His Pro Phe Leu Ala Ala His  
 340 345 350  
 Gly Pro Ala Phe His Lys Gly Tyr Lys His Ser Thr Ile Asn Ile Val  
 355 360 365  
 Asp Ile Tyr Pro Met Met Cys His Ile Leu Gly Leu Lys Pro His Pro  
 370 375 380  
 Asn Asn Gly Thr Phe Gly His Thr Lys Cys Leu Leu Val Asp Gln Trp  
 385 390 395 400  
 Cys Ile Asn Leu Pro Glu Ala Ile Ala Ile Val Ile Gly Ser Leu Leu  
 405 410 415  
 Val Leu Thr Met Leu Thr Cys Leu Ile Ile Ile Met Gln Asn Arg Leu  
 420 425 430  
 Ser Val Pro Arg Pro Phe Ser Arg Leu Gln Leu Gln Glu Asp Asp Asp  
 435 440 445  
 Asp Pro Leu Ile Gly  
 450

&lt;210&gt; 760

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 760

Trp His Ile Leu Gln Met Lys Gly Leu Thr Trp

1

5

10

&lt;210&gt; 761

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 761

Phe Ala Ile Phe Ile Tyr Phe Ser Val Ser Tyr Ile Ala Asp Gly Asn

1

5

10

15

Glu Phe Glu Val Pro Arg Ala Glu Asp Pro Cys Leu Leu Cys Phe

20

25

30

&lt;210&gt; 762

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (110)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 762

Met Arg Ile Phe Ala Val Phe Ile Phe Met Thr Tyr Trp His Leu Leu

1

5

10

15

Asn Ala Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr

20

25

30

Gly Ser Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu

35

40

45

Asp Leu Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile

50

55

60

Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser

65

70

75

80

Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn

85

90

95

Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Xaa Val Tyr

100

105

110

Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val

115

120

125

Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile Leu Val Val

130

135

140

Asp Pro Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr

145

150

155

160

Pro Lys Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser

410



165 170 175

Gly Lys Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn  
180 185 190

Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr  
195 200 205

Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu  
210 215 220

Val Ile Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile Cys Leu Thr  
225 230 235 240

Leu Ser Pro Ser Thr  
245

<210> 763  
<211> 290  
<212> PRT  
<213> Homo sapiens

<400> 763

Met Arg Ile Phe Ala Val Phe Ile Phe Met Thr Tyr Trp His Leu Leu  
1 5 10 15

Asn Ala Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr  
20 25 30

Gly Ser Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu  
35 40 45

Asp Leu Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile  
50 55 60

Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser  
65 70 75 80

Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn  
85 90 95

Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr  
100 105 110

Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val  
115 120 125

Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile Leu Val Val  
130 135 140

Asp Pro Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr  
145 150 155 160

Pro Lys Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser  
165 170 175

Gly Lys Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn  
180 185 190

411

Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr  
 195 200 205

Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu  
 210 215 220

Val Ile Pro Glu Leu Pro Leu Ala His Pro Pro Asn Glu Arg Thr His  
 225 230 235 240

Leu Val Ile Leu Gly Ala Ile Leu Leu Cys Leu Gly Val Ala Leu Thr  
 245 250 255

Phe Ile Phe Arg Leu Arg Lys Gly Arg Met Met Asp Val Lys Lys Cys  
 260 265 270

Gly Ile Gln Asp Thr Asn Ser Lys Lys Gln Ser Asp Thr His Leu Glu  
 275 280 285

Glu Thr  
 290

&lt;210&gt; 764

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 764

Ser Val Ser Lys Lys Lys Lys Lys Lys Lys Val Phe Cys Ile Leu Tyr  
 1 5 10 15

Lys Leu Val Val Val Gly Ser Arg Gly Leu Ser Thr Asp Asp Leu Met  
 20 25 30

Arg Ser Val Ser Arg Phe Ala Xaa Ser Gln Thr Phe Val Leu Leu Asn  
 35 40 45

Ser Ser Ser Phe Phe Ser Phe Leu Glu Thr Glu Ser Ser Ser Val Thr  
 50 55 60

Arg Leu Glu Cys Ser Gly Thr Ile Lys Ala Tyr Cys Ser Leu Tyr Leu  
 65 70 75 80

Pro Gly Ser Arg Asn Pro Pro Thr Leu Ala Ser  
 85 90

&lt;210&gt; 765

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 765

Met Val Tyr Cys Val Val Ser Pro Arg Arg Ala Thr Leu Phe Cys Val  
 1 5 10 15  
 Leu Leu Leu Gly Thr Arg Cys Glu Ile Ile Ser Val Arg Ser Ser Phe  
 20 25 30  
 Gly Glu Tyr Asp Lys Ile Asn Ser Ile Leu Lys Gly Leu Leu Lys Ile  
 35 40 45  
 Pro Phe Asn Glu Phe  
 50

&lt;210&gt; 766

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 766

Pro Pro Arg Thr Arg Leu Phe Leu Val Ile Leu Phe Cys Cys Phe Arg  
 1 5 10 15  
 Arg Asn Asp Thr Ser Phe Cys Phe Phe Glu Glu Lys Val Phe His Val  
 20 25 30  
 Thr Val Ala Arg Thr Asn Thr Lys Arg Ser Arg Leu Gln Met Leu Gln  
 35 40 45  
 Ala Cys Ala Val Val Cys Val Cys Val Cys Val Cys Val Cys Val Cys  
 50 55 60  
 Thr Tyr Ile Tyr Gly Lys His Ile Tyr Cys Cys Ala Ala Arg Gly Lys  
 65 70 75 80  
 Pro Ala Lys Lys Cys Val Cys Leu Tyr Glu Met Phe Glu Lys Arg  
 85 90 95

&lt;210&gt; 767

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 767

Met Val Tyr Cys Val Val Ser Pro Arg Arg Ala Thr Leu Phe Cys Val  
 1 5 10 15  
 Leu Leu Leu Gly Thr Arg Cys Glu Ile Ile Ser Val Arg Ser Ser Phe  
 20 25 30  
 Gly Glu Tyr Asp Lys Ile Asn Ser Ile Leu Lys Gly Leu Leu Lys Ile  
 35 40 45  
 Pro Phe Asn Glu Phe  
 50

<210> 768  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 768  
 Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile  
 1 5 10 15  
 Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Pro Thr  
 20 25 30  
 Val Thr Trp Pro Thr Ala Ala Val Asn  
 35 40

<210> 769  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 769  
 Pro Gly Leu Cys Ser Gln Leu His Val Pro Leu Leu Gly Gly Leu Cys  
 1 5 10 15  
 Gly Cys Pro Leu  
 20

<210> 770  
 <211> 383  
 <212> PRT  
 <213> Homo sapiens

<400> 770  
 Met Pro Ser Gly Cys Arg Cys Leu His Leu Val Cys Leu Leu Cys Ile  
 1 5 10 15  
 Leu Gly Ala Pro Gly Gln Pro Val Arg Ala Asp Asp Cys Ser Ser His  
 20 25 30  
 Cys Asp Leu Ala His Gly Cys Cys Ala Pro Asp Gly Ser Cys Arg Cys  
 35 40 45  
 Asp Pro Gly Trp Glu Gly Leu His Cys Glu Arg Cys Val Arg Met Pro  
 50 55 60  
 Gly Cys Gln His Gly Thr Cys His Gln Pro Trp Gln Cys Ile Cys His  
 65 70 75 80  
 Ser Gly Trp Ala Gly Lys Phe Cys Asp Lys Asp Glu His Ile Cys Thr  
 85 90 95  
 Thr Gln Ser Pro Cys Gln Asn Gly Gly Gln Cys Met Tyr Asp Gly Gly  
 100 105 110  
 Gly Glu Tyr His Cys Val Cys Leu Pro Gly Phe His Gly Arg Asp Cys

115	120	125
Glu Arg Lys Ala Gly Pro Cys Glu Gln Ala Gly Ser Pro Cys Arg Asn		
130	135	140
Gly Gly Gln Cys Gln Asp Asp Gln Gly Phe Ala Leu Asn Phe Thr Cys		
145	150	155
Arg Cys Leu Val Gly Phe Val Gly Ala Arg Cys Glu Val Asn Val Asp		
165	170	175
Asp Cys Leu Met Arg Pro Cys Ala Asn Gly Ala Thr Cys Leu Asp Gly		
180	185	190
Ile Asn Arg Phe Ser Cys Leu Cys Pro Glu Gly Phe Ala Gly Arg Phe		
195	200	205
Cys Thr Ile Asn Leu Asp Asp Cys Ala Ser Arg Pro Cys Gln Arg Gly		
210	215	220
Ala Arg Cys Arg Asp Arg Val His Asp Phe Asp Cys Leu Cys Pro Ser		
225	230	235
Gly Tyr Gly Gly Lys Thr Cys Glu Leu Val Leu Pro Val Pro Asp Pro		
245	250	255
Pro Thr Thr Val Asp Thr Pro Leu Gly Pro Thr Ser Ala Val Val Val		
260	265	270
Pro Ala Thr Gly Pro Ala Pro His Ser Ala Gly Ala Gly Leu Leu Arg		
275	280	285
Ile Ser Val Lys Glu Val Val Arg Arg Gln Glu Ala Gly Leu Gly Glu		
290	295	300
Pro Ser Leu Val Ala Leu Val Val Phe Gly Ala Leu Thr Ala Ala Leu		
305	310	315
Val Leu Ala Thr Val Leu Leu Thr Leu Arg Ala Trp Arg Arg Gly Val		
325	330	335
Cys Pro Pro Gly Pro Cys Cys Tyr Pro Ala Pro His Tyr Ala Pro Ala		
340	345	350
Cys Gln Asp Gln Glu Cys Gln Val Ser Met Leu Pro Ala Gly Leu Pro		
355	360	365
Leu Pro Arg Asp Leu Pro Pro Glu Pro Gly Lys Thr Thr Ala Leu		
370	375	380

&lt;210&gt; 771

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 771

Pro Gln Thr Ala Gly Pro Gln Lys Cys Ala

1

5

10

415

<210> 772  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 772  
 Pro Phe Pro Ala Gly Pro His Ser Trp Ile  
 1 5 10

<210> 773  
 <211> 35  
 <212> PRT  
 <213> Homo sapiens

<400> 773  
 Met Gly Arg Gly Pro Trp Asp Ala Gly Pro Ser Arg Arg Leu Leu Pro  
 1 5 10 15  
 Leu Leu Leu Leu Leu Gly Leu Ala Arg Gly Ala Ala Glu Arg Arg Ala  
 20 25 30  
 Pro Thr Val  
 35

<210> 774  
 <211> 747  
 <212> PRT  
 <213> Homo sapiens

<400> 774  
 Met Gly Arg Gly Pro Trp Asp Ala Gly Pro Ser Arg Arg Leu Leu Pro  
 1 5 10 15  
 Leu Leu Leu Leu Leu Gly Leu Ala Arg Gly Ala Ala Gly Ala Pro Gly  
 20 25 30  
 Pro Asp Gly Leu Asp Val Cys Ala Thr Cys His Glu His Ala Thr Cys  
 35 40 45  
 Gln Gln Arg Glu Gly Lys Lys Ile Cys Ile Cys Asn Tyr Gly Phe Val  
 50 55 60  
 Gly Asn Gly Arg Thr Gln Cys Val Asp Lys Asn Glu Cys Gln Phe Gly  
 65 70 75 80  
 Ala Thr Leu Val Cys Gly Asn His Thr Ser Cys His Asn Thr Pro Gly  
 85 90 95  
 Gly Phe Tyr Cys Ile Cys Leu Glu Gly Tyr Arg Ala Thr Asn Asn Asn  
 100 105 110  
 Lys Thr Phe Ile Pro Asn Asp Gly Thr Phe Cys Thr Asp Ile Asp Glu  
 115 120 125

Cys Glu Val Ser Gly Leu Cys Arg His Gly Gly Arg Cys Val Asn Thr  
 130 135 140  
 His Gly Ser Phe Glu Cys Tyr Cys Met Asp Gly Tyr Leu Pro Arg Asn  
 145 150 155 160  
 Gly Pro Glu Pro Phe His Pro Thr Thr Asp Ala Thr Ser Cys Thr Glu  
 165 170 175  
 Ile Asp Cys Gly Thr Pro Pro Glu Val Pro Asp Gly Tyr Ile Ile Gly  
 180 185 190  
 Asn Tyr Thr Ser Ser Leu Gly Ser Gln Val Arg Tyr Ala Cys Arg Glu  
 195 200 205  
 Gly Phe Phe Ser Val Pro Glu Asp Thr Val Ser Ser Cys Thr Gly Leu  
 210 215 220  
 Gly Thr Trp Glu Ser Pro Lys Leu His Cys Gln Glu Ile Asn Cys Gly  
 225 230 235 240  
 Asn Pro Pro Glu Met Arg His Ala Ile Leu Val Gly Asn His Ser Ser  
 245 250 255  
 Arg Leu Gly Gly Val Ala Arg Tyr Val Cys Gln Glu Gly Phe Glu Ser  
 260 265 270  
 Pro Gly Gly Lys Ile Thr Ser Val Cys Thr Glu Lys Gly Thr Trp Arg  
 275 280 285  
 Glu Ser Thr Leu Thr Cys Thr Glu Ile Leu Thr Lys Ile Asn Asp Val  
 290 295 300  
 Ser Leu Phe Asn Asp Thr Cys Val Arg Trp Gln Ile Asn Ser Arg Arg  
 305 310 315 320  
 Ile Asn Pro Lys Ile Ser Tyr Val Ile Ser Ile Lys Gly Gln Arg Leu  
 325 330 335  
 Asp Pro Met Glu Ser Val Arg Glu Glu Thr Val Asn Leu Thr Thr Asp  
 340 345 350  
 Ser Arg Thr Pro Glu Val Cys Leu Ala Leu Tyr Pro Gly Thr Asn Tyr  
 355 360 365  
 Thr Val Asn Ile Ser Thr Ala Pro Pro Arg Arg Ser Met Pro Ala Val  
 370 375 380  
 Ile Gly Phe Gln Thr Ala Glu Val Asp Leu Leu Glu Asp Asp Gly Ser  
 385 390 395 400  
 Phe Asn Ile Ser Ile Phe Asn Glu Thr Cys Leu Lys Leu Asn Arg Arg  
 405 410 415  
 Ser Arg Lys Val Gly Ser Glu His Met Tyr Gln Phe Thr Val Leu Gly  
 420 425 430  
 Gln Arg Trp Tyr Leu Ala Asn Phe Ser His Ala Thr Ser Phe Asn Phe  
 435 440 445

Thr Thr Arg Glu Gln Val Pro Val Val Cys Leu Asp Leu Tyr Pro Thr  
 450 455 460  
 Thr Asp Tyr Thr Val Asn Val Thr Leu Leu Arg Ser Pro Lys Arg His  
 465 470 475 480  
 Ser Val Gln Ile Thr Ile Ala Thr Pro Pro Ala Val Lys Gln Thr Ile  
 485 490 495  
 Ser Asn Ile Ser Gly Phe Asn Glu Thr Cys Leu Arg Trp Arg Ser Ile  
 500 505 510  
 Lys Thr Ala Asp Met Glu Glu Met Tyr Leu Phe His Ile Trp Gly Gln  
 515 520 525  
 Arg Trp Tyr Gln Lys Glu Phe Ala Gln Glu Met Thr Phe Asn Ile Ser  
 530 535 540  
 Ser Ser Ser Arg Asp Pro Glu Val Cys Leu Asp Leu Arg Pro Gly Thr  
 545 550 555 560  
 Asn Tyr Asn Val Ser Leu Arg Ala Leu Ser Ser Glu Leu Pro Val Val  
 565 570 575  
 Ile Ser Leu Thr Thr Gln Ile Thr Glu Pro Pro Leu Pro Glu Val Glu  
 580 585 590  
 Phe Phe Thr Val His Arg Gly Pro Leu Pro Arg Leu Arg Leu Arg Lys  
 595 600 605  
 Ala Lys Glu Lys Asn Gly Pro Ile Ser Ser Tyr Gln Val Leu Val Leu  
 610 615 620  
 Pro Leu Ala Leu Gln Ser Thr Phe Ser Cys Asp Ser Glu Gly Ala Ser  
 625 630 635 640  
 Ser Phe Phe Ser Asn Ala Ser Asp Ala Asp Gly Tyr Val Ala Ala Glu  
 645 650 655  
 Leu Leu Ala Lys Asp Val Pro Asp Asp Ala Met Glu Ile Pro Ile Gly  
 660 665 670  
 Asp Arg Leu Tyr Tyr Gly Glu Tyr Tyr Asn Ala Pro Leu Lys Arg Gly  
 675 680 685  
 Ser Asp Tyr Cys Ile Ile Leu Arg Ile Thr Ser Glu Trp Asn Lys Val  
 690 695 700  
 Arg Arg His Ser Cys Ala Val Trp Ala Gln Val Lys Asp Ser Ser Leu  
 705 710 715 720  
 Met Leu Leu Gln Met Ala Gly Val Gly Leu Gly Ser Leu Ala Val Val  
 725 730 735  
 Ile Ile Leu Thr Phe Leu Ser Phe Ser Ala Val  
 740 745



<210> 775  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 775  
 Thr Trp Trp Pro Pro Cys Pro Pro Ala Pro Met Gly Gln Val Gly Ser  
 1 5 10 15  
 Cys Phe Ala Gly Leu Cys Gly Gln His Thr Arg Gly Leu His Gly Trp  
 20 25 30  
 Pro Gln Pro Ser Pro Ala Ala Pro Gln Met Arg Ser Cys  
 35 40 45

<210> 776  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 776  
 Gly Trp Cys Ser Arg Arg Asp Ser Cys Trp Pro Ser Pro Pro Thr Met  
 1 5 10 15  
 Pro

<210> 777  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (103)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 777  
 Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu  
 1 5 10 15  
 Leu Leu Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu  
 20 25 30  
 Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu  
 35 40 45  
 Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe  
 50 55 60  
 His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val  
 65 70 75 80  
 Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg  
 85 90 95

Arg Leu Gln Ala Gln Ala Xaa Arg Arg Gly Tyr Leu Pro Arg Ser Cys  
 100 105 110

Met Ser Ser Met Ala Phe Phe Leu  
 115 120

<210> 778

<211> 269

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (236)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (257)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 778

Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu  
 1 5 10 15

Leu Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu  
 20 25 30

Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu  
 35 40 45

Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe  
 50 55 60

His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val  
 65 70 75 80

Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg  
 85 90 95

Arg Leu Gln Ala Gln Ala Ala Arg Arg Gly Tyr Leu Thr Lys Ile Leu  
 100 105 110

His Val Phe His Gly Leu Leu Pro Gly Phe Leu Val Lys Met Ser Gly  
 115 120 125

Asp Leu Leu Glu Leu Ala Leu Lys Leu Pro His Val Asp Tyr Ile Glu  
 130 135 140

Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg  
 145 150 155 160

Ile Thr Pro Pro Arg Tyr Arg Ala Asp Glu Tyr Gln Pro Pro Asp Gly  
 165 170 175

Gly Ser Leu Val Glu Val Tyr Leu Leu Asp Thr Ser Ile Gln Ser Asp  
 180 185 190

His Arg Glu Ile Glu Gly Arg Val Met Val Thr Asp Phe Glu Asn Val  
195 200 205

Pro Glu Glu Asp Gly Thr Arg Phe His Arg Gln Ala Ser Lys Cys Asp  
210 215 220

Ser His Gly Pro Thr Trp Gln Gly Trp Ser Ala Xaa Gly Met Pro Ala  
225 230 235 240

Trp Pro Arg Val Pro Ala Cys Ala Ala Cys Ala Cys Phe Pro Lys Lys  
245 250 255

Xaa Pro Leu Leu Gly Gly Pro Pro Gln Lys Lys Gly Gly  
260 265

<210> 779

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 779

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr  
1 5 10 15

Ala Val Leu Thr Trp Leu Ser Gln Thr Leu Trp Met Pro Ile Tyr Pro  
20 25 30

Leu Cys Val Leu Ala Glu Ala Phe Ala Ile Tyr Gln Ser Leu Pro Tyr  
35 40 45

Phe Glu Ser Phe Gly Thr Tyr Ser Thr Lys Leu Pro Phe Asp Leu Ser  
50 55 60

Ile Tyr Phe Pro Tyr Val Leu Lys Ile Tyr Leu Met Met Leu Phe Ile  
65 70 75 80

Gly Met Tyr Phe Thr Tyr Ser His Leu Tyr Ser Xaa Arg Arg Asp Ile  
85 90 95

Leu Gly Ile Phe Pro Ile Lys Lys Lys Lys Met  
100 105

<210> 780

<211> 37

<212> PRT

<213> Homo sapiens

<400> 780

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr  
1 5 10 15

Ala Val Leu Thr Trp Ala Gln Ser Asn Thr Met Asp Ala Asn Leu Ser  
                   20                  25                  30

Phe Val Cys Ser Cys  
                   35

<210> 781

<211> 107

<212> PRT

<213> Homo sapiens

<400> 781

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr  
   1                  5                  10                  15

Ala Val Leu Thr Trp Leu Ser Gln Thr Leu Trp Met Pro Ile Tyr Pro  
                   20                  25                  30

Leu Cys Val Leu Ala Glu Ala Phe Ala Ile Tyr Gln Ser Leu Pro Tyr  
                   35                  40                  45

Phe Glu Ser Phe Gly Thr Tyr Ser Thr Lys Leu Pro Phe Asp Leu Ser  
                   50                  55                  60

Ile Tyr Phe Pro Tyr Val Leu Lys Ile Tyr Leu Met Met Leu Phe Ile  
                   65                  70                  75                  80

Gly Met Tyr Phe Thr Tyr Ser His Leu Tyr Ser Glu Arg Arg Asp Ile  
                                   85                  90                  95

Leu Gly Ile Phe Pro Ile Lys Lys Lys Lys Met  
                   100                  105

<210> 782

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 782

Ser Asn Pro Ser His Ile Leu Met Ile Ser Ile Leu Leu Ser His Ala  
   1                  5                  10                  15

Ser Arg Gly Ala Gly Ala Asp Pro Lys Arg Ser Cys Cys Pro Gln Arg  
                   20                  25                  30

Val Gly Ser Arg Gly Arg Ala Xaa Val Arg Leu Thr Arg Leu Cys Ser  
                   35                  40                  45

Gln Pro Ser Pro His  
                   50

<210> 783  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<400> 783  
 His His Val Ala Gln Ala Leu Pro Pro Ala Gly Ala Pro Arg Gly Arg  
 1 5 10 15  
 Pro His Gln Pro His Pro Ala Pro Val Gly Gln Gly Ser Pro Glu Arg  
 20 25 30

Gly

<210> 784  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 784  
 Met Gly Phe His His Val Ser Gln Ala Ala Leu Val Leu Leu Leu Leu  
 1 5 10 15  
 Leu Leu Leu Leu Leu Leu Phe Asp Thr Glu Ser Arg Ser Ser Leu Ala  
 20 25 30  
 Thr Glu Arg Asp Ser Ile Ser Lys Lys Lys Asn Lys Lys Thr Lys Lys  
 35 40 45  
 Lys Asn Arg Lys Glu Thr Lys Asn Val Val Leu Ile Leu Ile Asn Ser  
 50 55 60  
 Asn Ser Phe Met Trp Leu Ala Ala Ala Leu  
 65 70

<210> 785  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 785  
 Met Gly Phe His His Val Ser Gln Ala Ala Leu Val Leu Leu Leu Leu  
 1 5 10 15  
 Leu Leu Leu Leu Leu Leu Phe Asp Thr Glu Ser Arg Ser Ser Leu Ala  
 20 25 30  
 Thr Glu Arg Asp Ser Ile Ser Lys Lys Lys Asn Lys Lys Thr Lys Lys  
 35 40 45  
 Lys Asn Arg Lys Glu Thr Lys Asn Val Val Leu Ile Leu Ile Asn Ser  
 50 55 60

Asn Ser Phe Met Trp Leu Ala Ala Ala Leu  
65 70

<210> 786

<211> 178

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (171)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (177)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 786

Met Ala Ala Pro Arg Gly Arg Ala Ala Pro Trp Thr Thr Ala Leu Leu  
1 5 10 15

Leu Leu Leu Ala Ser Gln Val Leu Ser Pro Gly Ser Cys Ala Asp Glu  
20 25 30

Glu Glu Val Pro Glu Glu Trp Val Leu Leu His Val Val Gln Gly Gln  
35 40 45

Ile Gly Ala Gly Asn Tyr Ser Tyr Leu Arg Leu Asn His Glu Gly Lys  
50 55 60

Ile Val Leu Arg Met Arg Ser Leu Lys Gly Asp Ala Asp Leu Tyr Val  
65 70 75 80

Ser Ala Ser Ser Leu His Pro Ser Phe Asp Asp Tyr Glu Leu Gln Ser  
85 90 95

Ala Thr Cys Gly Pro Asp Ala Val Ser Ile Pro Ala His Phe Arg Arg  
100 105 110

Pro Val Gly Ile Gly Val Tyr Gly His Pro Ser His Leu Glu Ser Glu  
115 120 125

Phe Glu Met Lys Val Tyr Tyr Asp Gly Thr Val Glu Gln His Pro Phe  
130 135 140

Gly Glu Ala Ala Tyr Pro Ala Asp Gly Gln Met Pro Xaa Arg Ser Thr  
145 150 155 160

Leu Val Pro Arg Lys Thr Pro Arg Lys Xaa Xaa Asn Leu Phe Ser Gly  
 165 170 175

Xaa Tyr

<210> 787

<211> 191

<212> PRT

<213> Homo sapiens

<400> 787

Met Ala Ala Pro Arg Gly Arg Ala Ala Pro Trp Thr Thr Ala Leu Leu  
 1 5 10 15

Leu Leu Leu Ala Ser Gln Val Leu Ser Pro Gly Ser Cys Ala Asp Glu  
 20 25 30

Glu Glu Val Pro Glu Glu Trp Val Leu Leu His Val Val Gln Gly Gln  
 35 40 45

Ile Gly Ala Gly Asn Tyr Ser Tyr Leu Arg Leu Asn His Glu Gly Lys  
 50 55 60

Ile Val Leu Arg Met Arg Ser Leu Lys Gly Asp Ala Asp Leu Tyr Val  
 65 70 75 80

Ser Ala Ser Ser Leu His Pro Ser Phe Asp Asp Tyr Glu Leu Gln Ser  
 85 90 95

Ala Thr Cys Gly Pro Asp Ala Val Ser Ile Pro Ala His Phe Arg Arg  
 100 105 110

Pro Val Gly Ile Gly Val Tyr Gly His Pro Ser His Leu Glu Ser Glu  
 115 120 125

Phe Glu Met Lys Val Tyr Tyr Asp Gly Thr Val Glu Gln His Pro Phe  
 130 135 140

Gly Glu Ala Ala Tyr Pro Ala Asp Gly Ala Asp Ala Gly Gln Lys His  
 145 150 155 160

Ala Gly Ala Pro Glu Asp Ala Ser Gln Glu Glu Glu Ser Val Leu Trp  
 165 170 175

Thr Ile Leu Ile Ser Ile Leu Lys Leu Glu Leu Glu Ile Leu Phe  
 180 185 190

<210> 788

<211> 8

<212> PRT

<213> Homo sapiens

<400> 788

Thr Ala Ile Phe Phe Leu Leu Val

1

5

&lt;210&gt; 789

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 789

Met	Arg	Phe	Trp	Phe	Leu	Val	Phe	Xaa	Phe	Phe	Phe	Phe	Pro	Glu	Ala
1				5					10					15	

His	Val	Tyr	Pro	Thr	Ser	Trp	Xaa	Val	Ser	Glu	Gln	Gly	Xaa	Ala	Thr
			20					25						30	

Ile	Ser	Val	Thr	Pro	Gly	Ile	Leu	Asn	Trp	Ile	Phe	Val	Glu	Glu	Glu
		35					40					45			

Asn	Asn	Thr	Val	Leu	Asp	Phe	Pro
		50				55	

&lt;210&gt; 790

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 790

Glu	Glu	Arg	Trp	Lys	Ser	Pro	Glu	Val	Arg	Trp	Ala	Pro	Gly	Val	Ala
1				5					10					15	

Met	Glu	Glu	Ser	Gly	Tyr	Glu	Ser	Val	Leu	Cys	Val	Lys	Pro	Asp	Val
			20					25						30	

His	Val	Tyr	Arg	Ile	Pro	Pro	Arg	Ala	Thr	Asn	Arg	Gly	Tyr	Arg	Ala
			35					40					45		

Ala	Glu	Trp	Gln	Leu	Asp	Gln	Pro	Ser	Trp	Ser	Gly	Arg	Leu	Arg	Ile
		50				55					60				

Thr	Ala	Lys	Gly	Gln	Met	Ala	Tyr	Ile	Lys	Leu	Glu	Asp	Arg	Thr	Ser
	65					70				75					80



Gly Glu Leu Phe Ala Gln Ala Pro Val Asp Gln Phe Pro Gly Thr Ala  
                             85                            90                            95  
 Val Glu Ser Val Thr Asp Ser Ser Arg Tyr Phe Val Ile Arg Ile Glu  
                             100                            105                            110  
 Asp Gly Asn Gly Arg Arg Ala Phe Ile Gly Ile Gly Phe Gly Asp Arg  
                             115                            120                            125  
 Gly Asp Ala Phe Asp Phe Asn Val Ala Leu Gln Asp His Phe Lys Trp  
                             130                            135                            140  
 Val Lys Gln Gln Cys Glu Phe Ala Lys Gln Ala Gln Asn Pro Asp Gln  
                             145                            150                            155                            160  
 Gly Pro Lys Leu Asp Leu Gly Phe Lys Glu Gly Gln Thr Ile Lys Leu  
                             165                            170                            175  
 Asn Ile Ala Asn Met Lys Lys Lys Glu Gly Ala Ala Gly Asn Pro Arg  
                             180                            185                            190  
 Val Arg Pro Ala Ser Thr Gly Gly Leu Ser Leu Leu Pro Pro Pro Pro  
                             195                            200                            205  
 Gly Gly Lys Thr Ser Thr Leu Ile Pro Pro Pro Gly Glu Gln Leu Ala  
                             210                            215                            220  
 Val Gly Gly Ser Leu Val Gln Pro Ala Val Ala Pro Ser Ser Gly Gly  
                             225                            230                            235                            240  
 Ala Pro Val Pro Trp Pro Gln Pro Asn Pro Ala Thr Ala Asp Ile Trp  
                             245                            250                            255  
 Gly Asp Phe Thr Lys Ser Thr Gly Ser Thr Ser Ser Gln Thr Gln Pro  
                             260                            265                            270  
 Gly Thr Gly Trp Val Gln Phe  
                             275

&lt;210&gt; 791

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 791

Arg Ser Arg Ser Lys Pro Arg Cys Asn Cys Glu Ile Val Thr Ile Phe  
   1                            5                            10                            15

Phe Ala Arg Phe Lys Ile Gly Pro Gly Arg His Arg Lys Arg Lys Ile  
                             20                            25                            30

Pro Lys Leu Cys Ser Ser Gly Ser Thr Ile Gly Arg Val Tyr Ser Leu  
                             35                            40                            45

Pro Gly Leu Leu Arg Arg Gly Ser Cys Leu Phe Gly Tyr Ile Thr Pro  
                             50                            55                            60

Asp Trp Phe Val Leu Lys Ile Asn Val Ile Met Leu Val Ser Tyr Leu

```

65              70              75              80
Met Val Ser Leu Glu His Ser Pro Leu Ile Leu Phe Glu Arg Val Gly
              85              90              95
Gly Arg Asp Cys Glu Gly Arg Glu Lys Cys
          100          105

```

```
<210> 792
<211> 56
<212> PRT
<213> Homo sapiens
```

```

<400> 792
Met Arg Phe Trp Phe Leu Val Phe Cys Phe Phe Phe Phe Pro Glu Ala
  1             5             10             15
His Val Tyr Pro Thr Ser Trp Ser Val Ser Glu Gln Gly Cys Ala Thr
      20             25             30
Ile Ser Val Thr Pro Gly Ile Leu Asn Trp Ile Phe Val Glu Glu Glu
      35             40             45
Asn Asn Thr Val Leu Asp Phe Pro
      50             55

```

```
<210> 793
<211> 41
<212> PRT
<213> Homo sapiens.
```

```

<400> 793
Met Thr Phe Ser Pro Leu Met Cys Tyr Cys Cys Cys Trp Val Gly Trp
  1                      5                      10                      15

Ala Phe Cys Leu Phe Val Trp Trp Gln Ser Val Val Val Gly Ser Gly
      20                      25                      30

Arg Ala Tyr Ile Gly Phe Ser Ser Tyr
    35                      40

```

```
<210> 794
<211> 41
<212> PRT
<213> Homo sapiens
```

```

<400> 794
Met Thr Phe Ser Pro Leu Met Cys Tyr Cys Cys Cys Trp Val Gly Trp
  1                      5              10              15
Ala Phe Cys Leu Phe Val Trp Trp Gln Ser Val Val Val Gly Ser Gly
      20              25              30
Arg Ala Tyr Ile Gly Phe Ser Ser Tyr

```

35

40

<210> 795  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 795  
 Met Thr Phe Ser Pro Leu Met Cys Tyr Cys Cys Cys Trp Val Gly Trp  
   1                  5                  10                  15  
 Ala Phe Cys Leu Phe Val Trp Trp Gln Ser Val Val Val Gly Ser Gly  
                   20                  25                  30  
 Arg Ala Tyr Ile Gly Phe Ser Ser Tyr  
           35                  40

<210> 796  
 <211> 43  
 <212> PRT  
 <213> Homo sapiens

<400> 796  
 Phe Leu Arg Phe Asp Gly Ile Ile Met Glu Ala Leu Tyr Lys Leu Asn  
   1                  5                  10                  15  
 Glu Ile Gly Lys Gly Glu Leu Thr Leu Ser Ile Met His Ser Gly Leu  
                   20                  25                  30  
 Lys Ile Arg Phe Gln Asn Glu Met Ser Asp Leu  
           35                  40

<210> 797  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<400> 797  
 Ile Gly Val Asn Tyr Leu Leu Leu Phe Phe Ile Phe  
   1                  5                  10

<210> 798  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 798  
 Lys Leu Gly Phe Ser Thr Ile Leu Leu Leu Ser Ile Phe Ile Met Ser  
   1                  5                  10                  15  
 Glu Ala Asn

<210> 799  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 799  
Lys Leu Gly Phe Ser Thr Ile Leu Leu Leu Ser Ile Phe Ile Met Ser  
1 5 10 15

Glu Ala Asn

<210> 800  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 800  
Leu Cys Val Cys Thr Gly Cys Pro Gly Gly Gly Pro Gln Ile Pro Phe  
1 5 10 15

Arg Trp Gln Thr Glu Arg Gly  
20

<210> 801  
<211> 29  
<212> PRT  
<213> Homo sapiens

<400> 801  
Val Cys Val Cys Val Cys Leu Ile Ala Arg Val Tyr Phe Cys Ile Tyr  
1 5 10 15

Val Cys Val Trp Leu His Gly Cys Ala Ser Val Cys Leu  
20 25

<210> 802  
<211> 6  
<212> PRT  
<213> Homo sapiens

<400> 802  
Val Leu Pro Ser Ala Ser  
1 5

<210> 803  
<211> 35  
<212> PRT  
<213> Homo sapiens

WO 01/77137

PCT/US01/11988

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 803

Met	Arg	Ala	Ser	Gly	Val	Tyr	Val	Ser	Xaa	Cys	Ser	Phe	Val	Phe	Met
1				5				10					15		

Cys	Val	Cys	Val	Cys	Met	Leu	Asn	Ser	Arg	Xaa	Thr	Phe	Asp	Tyr	Gly
			20					25					30		

Val	Cys	Gly
		35

&lt;210&gt; 804

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 804

Met	Arg	Ala	Ser	Gly	Val	Tyr	Val	Ser	Glu	Cys	Ser	Phe	Val	Phe	Met
1				5				10					15		

Cys	Val	Cys	Val	Cys	Met	Ser	Asp	Cys	Thr	Gly	Val	Leu	Leu	Tyr	Leu
			20					25					30		

Cys	Val	Cys	Val	Val	Ala	Arg	Val	Cys	Leu	Cys	Val	Ser	Leu	Thr	Leu
			35				40						45		

Ala	Gly	Cys	Val	Cys	Lys	Ser	Val
	50					55	

&lt;210&gt; 805

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 805

Met	Ile	Arg	Ile	Gln	Phe	Leu	His	Leu	Phe	Leu	Trp	Val	Gly	Phe	Ile
1				5				10					15		

Phe	Arg	Gln	Pro	Pro	Ser	Ser	Tyr	Pro	Gln	Asp	Gly	Arg	Asp	Ser	Pro
			20					25					30		

Trp	Ser	Phe	Pro	Cys	Arg	Asp	Arg	Ser	Pro	Gly	Asn	Asn	Thr	Ser	Ile
			35				40					45			

Pro	Ser	His	Glu	Thr	Val	Leu	Asn	Phe	Ile	Leu	Thr
			50				55				60

<210> 806  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 806  
 Met Ile Arg Ile Gln Phe Leu His Leu Phe Leu Trp Val Gly Phe Ile  
           1                  5                  10                  15  
 Phe Arg Gln Pro Pro Ser Ser Tyr Pro Gln Asp Gly Arg Asp Ser Pro  
                   20                  25                  30  
 Trp Ser Phe Pro Cys Arg Asp Arg Ser Pro Gly Asn Asn Thr Ser Ile  
           35                  40                  45  
 Pro Ser His Glu Thr Val Leu Asn Phe Ile Leu Thr  
           50                  55                  60

<210> 807  
 <211> 444  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (95)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (98)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (101)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 807  
 Met Leu Gln Arg Ile Gly Leu Ile Phe Leu His Asn Ile Val Val Val  
           1                  5                  10                  15  
 Ser Asn Cys Phe Tyr Phe Gln Ala Phe Leu Asp Glu Phe Thr Asn Trp  
                   20                  25                  30

Ser Arg Ile Asn Pro Asn Lys Ala Arg Ile Pro Met Ala Gly Asp Thr  
 35 40 45  
 Gln Gly Val Val Gly Thr Val Ser Lys Pro Cys Phe Thr Ala Tyr Glu  
 50 55 60  
 Met Lys Ile Gly Ala Ile Thr Phe Gln Val Ala Thr Gly Asp Ile Ala  
 65 70 75 80  
 Thr Glu Gln Val Asp Val Ile Val Asn Ser Thr Xaa Arg Thr Xaa Asn  
 85 90 95  
 Xaa Xaa Ser Gly Xaa Ser Arg Ala Ile Leu Glu Gly Ala Gly Gln Ala  
 100 105 110  
 Val Glu Ser Glu Cys Ala Val Leu Ala Ala Gln Pro His Arg Asp Phe  
 115 120 125  
 Ile Ile Thr Pro Gly Gly Cys Leu Lys Cys Lys Ile Ile Ile His Val  
 130 135 140  
 Pro Gly Gly Lys Asp Val Arg Lys Thr Val Thr Ser Val Leu Glu Glu  
 145 150 155 160  
 Cys Glu Gln Arg Lys Tyr Thr Ser Val Ser Leu Pro Ala Ile Gly Thr  
 165 170 175  
 Gly Asn Ala Gly Lys Asn Pro Ile Thr Val Ala Asp Asn Ile Ile Asp  
 180 185 190  
 Ala Ile Val Asp Phe Ser Ser Gln His Ser Thr Pro Ser Leu Lys Thr  
 195 200 205  
 Val Lys Val Val Ile Phe Gln Pro Glu Leu Leu Asn Ile Phe Tyr Asp  
 210 215 220  
 Ser Met Lys Lys Arg Asp Leu Ser Ala Ser Leu Asn Phe Gln Ser Thr  
 225 230 235 240  
 Phe Ser Met Thr Thr Cys Asn Leu Pro Glu His Trp Thr Asp Met Asn  
 245 250 255  
 His Gln Leu Phe Cys Met Val Gln Leu Glu Pro Gly Gln Ser Glu Tyr  
 260 265 270  
 Asn Thr Ile Lys Asp Lys Phe Thr Arg Thr Cys Ser Ser Tyr Ala Ile  
 275 280 285  
 Glu Lys Ile Glu Arg Ile Gln Asn Ala Phe Leu Trp Gln Ser Tyr Gln  
 290 295 300  
 Val Lys Lys Arg Gln Met Asp Ile Lys Asn Asp His Lys Asn Asn Glu  
 305 310 315 320  
 Arg Leu Leu Phe His Gly Thr Asp Ala Asp Ser Val Pro Tyr Val Asn  
 325 330 335  
 Gln His Gly Phe Asn Arg Ser Cys Ala Gly Lys Asn Ala Val Ser Tyr  
 340 345 350

Gly Lys Gly Thr Tyr Phe Ala Val Asp Ala Ser Tyr Ser Ala Lys Asp  
                   355                                  360                                  365

Thr Tyr Ser Lys Pro Asp Ser Asn Gly Arg Lys His Met Tyr Val Val  
           370                                  375                                  380

Arg Val Leu Thr Gly Val Phe Thr Lys Gly Arg Ala Gly Leu Val Thr  
   385                                  390                                  395                                  400

Pro Pro Pro Lys Asn Pro His Asn Pro Thr Asp Leu Phe Asp Ser Val  
                                   405                                  410                                  415

Thr Asn Asn Thr Arg Ser Pro Lys Leu Phe Val Val Phe Phe Asp Asn  
                                   420                                  425                                  430

Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Thr Ala  
           435                                  440

<210> 808

<211> 505

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (358)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (494)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (504)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (505)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 808

Met Phe Arg Thr Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly  
   1                                  5                                  10                                  15

Ala Val Val Ala His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr  
                                   20                                  25                                  30

Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile  
           35                                  40                                  45

Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val  
   50                                  55                                  60

Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg  
   65                                  70                                  75                                  80



Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg  
 85 90 95  
 Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe  
 100 105 110  
 Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu  
 115 120 125  
 Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu  
 130 135 140  
 Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr  
 145 150 155 160  
 His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe  
 165 170 175  
 Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr  
 180 185 190  
 Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys  
 195 200 205  
 Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val  
 210 215 220  
 Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe  
 225 230 235 240  
 Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys  
 245 250 255  
 Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met  
 260 265 270  
 Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp  
 275 280 285  
 Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg  
 290 295 300  
 Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe  
 305 310 315 320  
 Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala  
 325 330 335  
 Ser Leu Pro Ala Gln Ser Pro Pro Pro Pro Glu Pro Ala Asp Gln Gly  
 340 345 350  
 Pro Pro Pro Ala Pro Xaa Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn  
 355 360 365  
 Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu  
 370 375 380  
 Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Pro Ser Ser  
 385 390 395 400

```

<400> 809
Met Phe Arg Thr Ala Val Met Met Ala Ala Ser Ile Trp Pro Arg Leu
  1             5             10             15

Trp Xaa Cys Pro Xaa Gly Trp Pro Cys Pro Trp Phe Pro Leu Pro Ser
      20             25             30

Ser Leu Asp Gly Tyr Ala Pro Ala Ser Thr Leu Cys Leu Pro Pro Asn
      35             40             45

Ala Cys Ala Pro Cys Gly Phe Ala Gly Leu Thr Pro Glu Glu Leu Arg
      50             55             60

Ala Leu Glu Gly His Glu Arg Gln His Leu Glu Ala Arg Leu Gln Ser
      65             70             75             80

Leu Arg Asn Ile His Thr Leu Leu Asp Ala Ala Met Leu Gln Ile Asn
      85             90             95

Gln Tyr Leu Thr Val Leu Ala Ser Leu Gly Pro Pro Arg Pro Ala Thr
      100             105             110

```

Ser Val Asn Ser Thr Glu Glu Thr Ala Thr Thr Val Val Ala Ala Ala  
 115 120 125

Ser Ser Thr Ser Ile Pro Ser Ser Glu Ala Thr Thr Pro Thr Pro Gly  
 130 135 140

Ala Ser Pro Pro Ala Pro Glu Met Glu Arg Pro Pro Ala Pro Glu Ser  
 145 150 155 160

Val Gly Thr Glu Glu Met Pro Glu Asp Gly Glu Pro Asp Ala Ala Glu  
 165 170 175

Leu Arg Arg Arg Arg Leu Gln Lys Leu Glu Ser Pro Val Ala His  
 180 185 190

&lt;210&gt; 810

&lt;211&gt; 617

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 810

Met Phe Arg Thr Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly  
 1 5 10 15

Ala Val Val Ala His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr  
 20 25 30

Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile  
 35 40 45

Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val  
 50 55 60

Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg  
 65 70 75 80

Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg  
 85 90 95

Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe  
 100 105 110

Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu  
 115 120 125

Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu  
 130 135 140

Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr  
 145 150 155 160

His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe  
 165 170 175

Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr  
 180 185 190

Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys  
 195 200 205  
 Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val  
 210 215 220  
 Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe  
 225 230 235 240  
 Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys  
 245 250 255  
 Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met  
 260 265 270  
 Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp  
 275 280 285  
 Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg  
 290 295 300  
 Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe  
 305 310 315 320  
 Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala  
 325 330 335  
 Ser Leu Pro Ala Gln Ser Pro Pro Pro Glu Pro Ala Asp Gln Gly  
 340 345 350  
 Pro Pro Pro Ala Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn  
 355 360 365  
 Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu  
 370 375 380  
 Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Ser Ser  
 385 390 395 400  
 Gly Glu Ala Val Ala Pro Pro Ser Thr Ser Ala Ala Ala Leu Ser Arg  
 405 410 415  
 Pro Ser Gly Ala Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala  
 420 425 430  
 Ala Ser Ala Thr Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala  
 435 440 445  
 Gly Pro Ala Pro Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro  
 450 455 460  
 Leu Pro Pro Pro Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly  
 465 470 475 480  
 Phe Ala Gly Leu Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu  
 485 490 495  
 Arg Gln His Leu Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr  
 500 505 510

Leu Leu Asp Ala Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu  
 515 520 525

Ala Ser Leu Gly Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu  
 530 535 540

Glu Thr Ala Thr Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro  
 545 550 555 560

Ser Ser Glu Ala Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro  
 565 570 575

Glu Met Glu Arg Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met  
 580 585 590

Pro Glu Asp Gly Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu  
 595 600 605

Gln Lys Leu Glu Ser Pro Val Ala His  
 610 615

<210> 811  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 811  
 Met Asn Val Arg Leu Val Leu Asn Pro Phe Pro Leu Tyr Ser Val Tyr  
 1 5 10 15

Val Ile Pro Asn  
 20

<210> 812  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<400> 812  
 Leu Glu Ile Leu Val Val Lys Lys Leu Leu Ala  
 1 5 10

<210> 813  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 813  
 Met Asn Val Arg Leu Val Leu Asn Pro Phe Pro Leu Tyr Ser Val Tyr  
 1 5 10 15

Val Ile Pro Asn  
 20

<210> 814  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 814  
 Met Leu Cys Pro Ala Leu Gly Pro Phe Leu Leu Phe Leu Leu Ser Ser  
           1                  5                  10                  15  
 Thr Leu Met Ala Ser Phe Met Gly Asp Thr Pro Cys His Pro Gly Glu  
                   20                  25                  30  
 Leu Ser Ala Phe Gly Val Ala Pro Ser Arg Val Phe Thr Ser Ser Phe  
                   35                  40                  45  
 Leu Phe Thr Val Phe Thr Pro Ser Tyr Pro Ser Leu Pro Gly  
           50                  55                  60

<210> 815  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 815  
 Met Leu Cys Pro Ala Leu Gly Pro Phe Leu Leu Phe Leu Leu Ser Ser  
           1                  5                  10                  15  
 Thr Leu Met Ala Ser Phe Met Gly Asp Thr Pro Cys His Pro Gly Glu  
                   20                  25                  30  
 Leu Ser Ala Phe Gly Val Ala Pro Ser Arg Val Phe Thr Ser Ser Phe  
                   35                  40                  45  
 Leu Phe Thr Val Phe Thr Pro Ser Tyr Pro Ser Leu Pro Gly  
           50                  55                  60

<210> 816  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 816  
 Gln Ala Ser Trp Val Trp Trp Leu Thr Thr Val Ile Pro Ala Leu Trp  
           1                  5                  10                  15  
 Glu Ala Arg Ala Gly Gly Ser Leu Glu Pro Arg Ser Ser Arg Leu Ala  
                   20                  25                  30  
 Trp Ala Thr Gln Lys Val Phe Ile Ser Lys Lys Lys Lys Lys Lys Lys  
                   35                  40                  45  
 Arg Ala Ala  
           50

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**